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ABSTRACT

This report describes the methods and procedures used for the 2000 National Postsecondary Student Aid Study (NPSAS:2000). NPSAS:2000 included notable changes from previous NPSAS surveys (conducted in 1987, 1990, 1993, and 1996) in its sample design and collection of data. For example, this study is the first to restrict institutional sampling to Title IV participating institutions. It is also the first in the NPSAS series to use Web-based instrumentation for institutional records collection. However, sufficient comparability in survey design and instrumentation was maintained to ensure that important comparisons with past NPSAS studied can be made. The discussion of methods and procedures contains these chapters: (1) "Introduction, Background, and Purpose"; (2) "Design and Method of NPSAS: 2000"; (3) "Outcomes of Data Collection"; (4) "Evaluation of Operations and Data"; (5) Variable Construction and File Development"; and (6) "Weighting and Variance Estimation." Eleven appendixes contain supplemental information about aspects of the survey. (Contains 133 tables and 11 figures.) (SLD)

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1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) Methodology Report

Technical Report

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National Center for Education Statistics

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1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) Methodology Report

Technical Report

June 2002

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Foreword

This report describes the methods and procedures used for the 2000 National Postsecondary Student Aid Study (NPSAS:2000). NPSAS:2000 included notable changes from previous NPSAS surveys (conducted in 1987, 1990, 1993, and 1996) in its sample design and collection of data. For example, the current study is the first to restrict institutional sampling to Title IV participating institutions. It is also the first in the NPSAS series to employ web-based instrumentation for institutional records collection. However, sufficient comparability in survey design and instrumentation was maintained to ensure that important comparisons with past NPSAS studies could be made.

We hope that the information provided in this report will be useful to a wide range of interested readers. We also hope that the results reported in the forthcoming descriptive summary reports will encourage use of the NPSAS:2000 data. We welcome recommendations for improving the format, content, and approach, so that future methodology reports will be more informative and useful.

C. Dennis Carroll
Associate Commissioner
Postsecondary Studies Division

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Particular thanks are also extended to the study technical review panel members, who provided considerable insight and guidance in development of the design and instrumentation of this study and an earlier major field test. Thanks are also extended to the project staff member of the three involved contractors—Research Triangle Institute (RTI), MPR Associates, and the National Association of Student Financial Aid Administrators (NASFAA). A cadre of staff from each of these organizations, including statisticians, analysts, survey managers, programmers, data collectors and interviewers—too numerous to list here worked long hours to produce the data files and reports of the 2000 NPSAS. At RTI we are especially indebted to Ms. Lil Clark, who prepared the graphics, integrated the text, and produced the drafts and final version of this report.

We also wish to thank all of those from OERI/NCES, who reviewed earlier drafts of this report and offered many helpful suggestions, including: Arnold A. Goldstein, Lisa Hudson, and Karen O'Conor; Dan Goldenberg (Office of the Under Secretary) and David A. Bergeron (Office of Postsecondary Education).

Most of all, we are greatly indebted to the staff of the 1,000 postsecondary education institutions who assisted in the institution records collection and to the over 44,000 students who generously participated in the telephone survey. Their willingness to take the time to share information has made this study a success.

1999–2000 National Postsecondary Student Aid Study (NPSAS:2000) Methodology Report

Executive Summary

Introduction

The National Postsecondary Student Aid Study (NPSAS), a comprehensive study of financial aid among postsecondary education students in the United States and Puerto Rico, provides information on trends in financial aid and on the ways in which families pay for postsecondary education. NPSAS represents students attending all types and levels of institutions, including public, private for-profit, private not-for-profit, less-than-2-year, 2-year, and 4-year institutions. The NPSAS data are part of the comprehensive information that the National Center for Education Statistics (NCES) provides on student financial aid receipt and other characteristics of those enrolled in postsecondary education.

NPSAS also serves as the base-year survey for longitudinal studies of postsecondary students. Thus, NPSAS:2000 was the base-year survey for a sample of baccalaureate degree recipients who were interviewed again in 2001.

This report describes the methods and procedures used for NPSAS:2000. The NPSAS:2000 sample design and collection procedures included notable changes from those used for previous NPSAS cycles. For example, NPSAS:2000 was the first to restrict institutional sampling to institutions having Title IV Program Participation Agreements with the U.S. Department of Education. It was also the first to employ a Web-based instrument for collection of institutional records. However, sufficient comparability in survey design and instrumentation was maintained to ensure that important comparisons with data from previous NPSAS cycles could be made.

Target Population and Sample Design

The target population for NPSAS:2000 consisted of all students who were enrolled in postsecondary institutions in the United States or Puerto Rico that had Title IV Program Participation Agreements with the U.S. Department of Education at any time between July 1, 1999, and June 30, 2000 (defined as the NPSAS:2000 year).

The institutional sampling frame for NPSAS:2000 was constructed from the 1998–99 Integrated Postsecondary Education Data System (IPEDS) Institutional Characteristics (IC) file and, because NPSAS:2000 also served as the base-year survey for a longitudinal study of baccalaureate recipients, the 1996–97 IPEDS Completions file. Eligible institutions were partitioned into 22 institutional strata based on institutional control, highest level of offering, and percentage of baccalaureate degrees awarded in education. Approximately 1,100 institutions were initially selected for NPSAS:2000, and all but 10 of these institutions were found to be eligible. Sampling frames for selecting students consisted of enrollment lists or data files provided by the institutions for those students enrolled during the NPSAS:2000 year.

The desired number of sample students was determined by accounting for expected rates of nonresponse and ineligibility among sample students in different strata and rates of misclassification of baccalaureate recipients (as determined from NPSAS:93 and the NPSAS:2000 field test). These sampling procedures resulted in the selection of about 70,200 students for NPSAS:2000, including 16,600 potential baccalaureate recipients. Almost 6,000 of these sample members were determined to be ineligible for NPSAS:2000 during various phases of data collection, resulting in a final eligible sample of about 64,500 students.

Data Collection Design and Outcomes

NPSAS:2000 involved a multistage effort to collect information related to student aid. All student sample members were first matched to the U.S. Department of Education's Central Processing System (CPS) to collect an electronic student aid report (Institutional Student Information Report, or ISIR) for each federal financial aid applicant. The second stage involved abstracting information from the student's records at the sampled postsecondary institution, using a Web-based computer-assisted data entry (CADE) system. Interviews were then conducted with sampled students, primarily using a computer-assisted telephone interviewing (CATI) procedure. To help reduce the level of nonresponse to CATI, computer-assisted personal interviewing (CAPI) procedures, using field interviewers, were also used for the first time on a NPSAS study.

Over the course of data collection, some data were obtained from the Department of Education's National Student Loan Data System (NSLDS), the ACT and the Educational Testing Service. These additional data sources provided information that was not collected from the institutions or the students and provided a way to "fill in" institutional record abstraction (CADE) data or student interview (CATI) data that were missing for individual sample members (e.g., demographic characteristics). The additional data sources also provided a way to check or confirm information obtained from student records or the interview.

Institutional Contacting

Once institutions were sampled, attempts were made to contact the chief administrator of the selected institutions to verify institutional eligibility, solicit participation of eligible institutions, and request appointment of an Institutional Coordinator. Coordinators were asked to provide lists or data files of all eligible students enrolled in any term within the NPSAS:2000 year. Several checks on quality and completeness of student lists were implemented before the sample students were selected. For applicable schools, separate checks were made for baccalaureate recipients, undergraduate students, graduate students, and first-professional students. Of the nearly 1,100 eligible institutions, 1,000 provided a student enrollment list or data file that could be used for sample selection, for an overall weighted institutional participation rate of 95 percent.

Institutional Record Abstraction

A CADE software system was developed for use in collecting data from student records. Institutions could choose either to enter the data themselves using a Web-based instrument or to have a field data collector enter the data. The CADE instrument was structured into eight sections: locating (telephone and address) information, demographic characteristics, admissions testing, enrollment, tuition data, financial aid awards, need analysis, and—for those students not previously matched successfully to the CPS, but who had applied for federal financial aid for the study year—ISIR.

The CADE record abstraction process began when a student sample had been selected from an institution's list and transmitted to the CPS for obtaining financial aid application data. Upon completion of the CPS matching, a number of data elements were preloaded into the CADE database, thus initializing the CADE system. In addition, the system was customized for each institution by preloading the names of up to 10 institution financial aid programs and up to 10 state financial aid programs. Once CADE was initialized for a particular institution, the Institutional Coordinator was notified by telephone that the CADE data collection could begin. Institutions that had chosen field data collection were also notified by telephone of CADE initialization, at which time an appointment was made for a field data collector to visit the institution.

Records for about 59,300 students (92 percent of the eligible students) were abstracted, with almost 70 percent of these abstracted by the institutions themselves using the NPSAS CADE Web Site.

Student Locating and Interviewing

Using information provided by CADE, sample members were traced to their current location prior to conducting the interview using the CATI system. The most current information for the student and any other contacts was preloaded into the CATI system to assist the interviewers in locating sample members. Cases that were not located during the CATI locating process were submitted to the tracing operations unit for intensive locating. Overall, 81 percent of the eligible sample members were located.

The CATI system developed for NPSAS:2000 presented interviewers with screens of questions to be asked of the respondents, with the software guiding the interviewer and respondent through the interview. The student interview consisted of seven sections administered sequentially, namely: eligibility, enrollment, financial aid, employment, education experiences and expectations, disabilities, and locating information. To reduce interview burden and to guide the interview, information collected from CADE and other sources was preloaded before the interviews. Online coding programs developed by NCES (for industry/occupation, IPEDS, and field of study coding) were embedded in the overall interview administration system.

Student interviews were conducted primarily by CATI. A paper-copy mail questionnaire or an "abbreviated" telephone interview was also available. All students finalized as "unlocatable" in CATI were eligible for field locating and/or CAPI. Nonresponding and unlocatable cases falling within predetermined geographic clusters were assigned to field staff for CAPI. CAPI procedures included attempts to locate, gain cooperation from, and interview sample members either by telephone or in person. Similar cases not in an identified cluster were assigned to field locators. Field locators then attempted to locate the students and convince them to call an 800 number to complete the interview in CATI.

Of the eligible sample members located, about 44,500 (87 percent) were interviewed. Adjusting for institution nonresponse, the overall weighted CATI response rate was 66 percent. Ninety-one percent of those interviewed completed the full interview.

Study Respondents

Students included in the final NPSAS:2000 analysis file were those students with completed institutional records (CADE) data and/or completed student interview (CAPI or CATI) data. Using this definition, about 61,800 of the 64,500 eligible sample students were classified as *study respondents,* for an unweighted student yield of 96 percent. After adjusting for institutional nonresponse and for attendance at more than one institution, the overall weighted study response rate was 89 percent.

Evaluation of Operations and Data Quality

Evaluations of NPSAS:2000 operations and procedures focused on the time line for data collection, the effectiveness of student tracing and locating procedures, refusal conversion efforts, the use of incentives for selected respondent groups, and the length of the student interview. Evaluations of data quality included analysis of nonresponse bias, examination of items with high rates of "don't know" and "refusal" responses, interviewer use of online help text, item coding and administration errors, quality control procedures, and analysis of the stability of item responses over time.

Data Files

Data are available for the 61,800 study respondents, including about 49,900 undergraduate students, 10,600 graduate students, and 1,200 first-professional students. Statistical analysis weights adjusting for unequal sampling rates and differential propensities to respond were computed for respondents.

Products

NPSAS:2000 reports or data products that have been or will be published include the following:

National Postsecondary Student Aid Study: Student Financial Aid Estimates for 1999–2000 (NCES 2001-209). http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001209 This report briefly describes key findings from NPSAS:2000.

Profile of Undergraduates in U.S. Postsecondary Education Institutions: 1999–2000 (NCES 2002-168) http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002168. This report contains detailed tables on the characteristics of undergraduates enrolled during 1999–2000, including age, race/ethnicity, gender, income, financial aid receipt, community service, veteran status, and more. It also includes an essay on the diversity of undergraduate students.

Student Financing of Undergraduate Education: 1999–2000. (NCES 2002-167) http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002167. This report focuses on how undergraduate students enrolled during 1999–2000 financed their education, providing detailed tables on the distribution and average amounts of grants, loans, and work-study funds received by students from federal, state, institutional, and private sources. These data are shown by selected student characteristics, such as age, gender, race/ethnicity, income, and attendance status for the various types of institutions. Information includes tuition, total student budgets, and the net price of attendance by type of institution. The report also includes an essay on students who borrow at the federal loan limits.

Student Financing of Graduate and First-Professional Education: 1999–2000 (NCES 2002-166 http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002166. This report describes the characteristics of graduate and first-professional students enrolled during 1999–2000, including age, race, gender, income, financial aid receipt, community service, veteran status, and more. It also describes those graduate and first-professional students who received financial aid—including grants, loans, and work-study—from federal, state, institutional, or other sources, by selected student characteristics. In addition, the report includes an essay on graduate students with assistantships.

NPSAS:2000 Undergraduate and Graduate/First Professional Data Analysis Systems. These Windows-based software applications provide public access to the NPSAS:2000 survey data. Users can generate tables of percentages, means, or correlation coefficients by choosing the Data Analysis System (DAS) variables of interest and specifying what function should be used.

NPSAS:2000 Restricted-Use Electronic Codebook and Data Files. This data product provides the complete data obtained through NPSAS:2000, documented by the electronic codebook (ECB). It is available only to researchers who have applied for and received authorization from NCES to access restricted-use research files. Contact Cynthia Barton, Data Security Officer, at 202–502–7307, or e-mail Cynthia.Barton@ed.gov.

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Chapter 1
Introduction, Background, and Purpose

This document describes the methodological procedures and results for the 2000 National Postsecondary Student Aid Study (NPSAS:2000). NPSAS:2000 is a comprehensive study of financial aid among postsecondary education students in the United States and Puerto Rico, and provides current information on how families pay for postsecondary education. The study was conducted for the National Center for Education Statistics (NCES) of the U.S. Department of Education (ED), as authorized by Title IV, Section 401 of the *National Education Statistics Act of 1994* (P.L. 103-382). NPSAS:2000 was conducted under contract by Research Triangle Institute (RTI), assisted by MPR Associates, Inc., and the National Association of Student Financial Aid Administrators (NASFAA).

This introductory chapter describes briefly the background, purposes, schedule, and products of the NPSAS:2000 full-scale study. The study design, sampling and data collection procedures are described in Chapter 2. The third chapter describes the overall outcomes for the several stages and sources of data collection. Chapter 4 examines the effectiveness of the procedures and methodologies employed in the study, and data quality issues. Chapter 5 describes the details of data editing, processing, and file development operations. Chapter 6 summarizes the NPSAS:2000, weighting and variance estimation activities.

Materials used during NPSAS:2000 data collection are provided as appendices to the report. These include: a list of the experts comprising the NPSAS:2000 technical review panel (appendix A); materials sent to institutions and students, as well as endorsements obtained from professional organizations and associations in support of the study (appendices B and C); contents of training materials (appendix D); and facsimiles of the study's data collection instruments (appendices E and F). Additional appendices provide supporting documentation regarding details of the complex sampling design developed for the study (appendix G), supplemental tables and design effects (appendices H and I), analysis variables (appendix J), and imputations (appendix K).

1.1. Background and Purpose of NPSAS

NPSAS is a comprehensive nationwide study designed to determine how students and their families pay for postsecondary education, and to describe some demographic and other characteristics of the students enrolled in postsecondary education. The study is based on a nationally representative sample of students in postsecondary education institutions, including undergraduate, graduate, and first-professional students. Students attending all types and levels of institutions are represented, including public and private for-profit and not-for-profit institutions, and less-than-2-year institutions to 4-year colleges and universities. The NPSAS studies are designed to address the policy questions resulting from the rapid growth of financial aid programs and the succession of changes in financial aid program policies since 1986. The first NPSAS study was conducted in 1986-87; subsequent studies have been carried out during the 1989-90, 1992-93, and 1995-96 school years (i.e., NPSAS:90, NPSAS:93, and NPSAS:96). This methodology report relates to the latest study in this series, NPSAS:2000, for which data were collected from sample students enrolled between July 1999 and June 2000.

In addition to collecting information on financial aid in the United States, since 1990 NPSAS has been used to form the base-year sample for a postsecondary longitudinal survey supported by NCES. Specifically, alternate NPSAS data collections provide the base year sample for either the Beginning Postsecondary Students (BPS) longitudinal study or the Baccalaureate and Beyond (B&B) longitudinal study. NPSAS:2000 serves as the base-year survey for a sample of baccalaureate students who will be surveyed again in 2001.

A main objective of the NPSAS study is to produce reliable national estimates of characteristics related to financial aid for postsecondary students. The data are part of NCES' comprehensive information on student financial aid and other characteristics of those enrolled in postsecondary education. The study focuses on three general questions with important policy implications for financial aid programs:

- How do students and their families finance postsecondary education?
- How does the process of financial aid work, in terms of both who applies for and who receives aid?
- What are the effects of financial aid on students and their families and on postsecondary institutions?

1.2. Methodological Issues

As described in Chapter 2, the NPSAS survey design is both large and complex. Data are collected from a very large and diverse set of students. A major methodological concern underlying NPSAS is selecting data sources that provide some assurance of comparability for each element. Of the potential sources for NPSAS data—government data files, institutional records, and students—none alone can provide a complete and accurate summary of postsecondary education financing.

Financial aid offices maintain accurate records of certain types of financial aid at that institution, but these records are not necessarily inclusive of all support and assistance. Such records may not contain financial aid provided at other institutions attended by the student or those not recorded by a financial aid office.[1] Students and their parents are more likely than institutions to have a comprehensive picture of education financing, but may not have accurate memory or records of exact amounts and sources. They may have provided information to lending agencies or aid providers (or clearinghouses), and that information may exist in student financial aid records. Consequently, the NPSAS data requirements call for a survey design that builds a comprehensive and accurate understanding of postsecondary education financing from a number of different sources. To meet this challenge, NPSAS:2000 relied on an integrated system of computer-assisted data capture instruments.

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[1] Two notable exceptions that are not maintained in many financial aid offices are employee benefits and graduate teaching or research assistantships.

Innovative methodological solutions that were applied to NPSAS:2000 challenges were tested and refined during a substantial field test conducted during the 1998-99 school year on a separate independent sample of students and institutions. Results of the field test have been reported separately.[2]

1.3. Special Features of NPSAS:2000

Although the general purposes of the NPSAS studies have remained quite consistent, all NPSAS implementations except the first also have served as the base year for a longitudinal study. For NPSAS:96 and NPSAS:90, the longitudinal cohort comprised students who began their postsecondary education during the NPSAS year. NPSAS:2000 and NPSAS:93 have provided the base-year cohort for a sample of students who completed a baccalaureate degree during the NPSAS year. As in the past, the NPSAS:2000 longitudinal cohort was oversampled to support the subsequent longitudinal follow-up study.

In implementing four prior rounds of NPSAS and their associated field tests, NCES and its contractors have developed and refined a number of systems and methods to facilitate subsequent rounds. Consequently, in NPSAS:2000, most methods that both had proved successful and remained applicable to current study needs were maintained or refined. Like prior NPSAS implementations, however, the current study also attempted to take advantage of new technologies and to access newly available data sources toward improving study efficiency and/or the quality of data collected.

The most significant enhancement to NPSAS:2000 involved the student record abstraction process. For NPSAS:2000, a new computer-assisted data entry (CADE) system for use over the Internet through the World Wide Web was developed and implemented. This Web-based software (Web-CADE) had a better user interface than the NPSAS:96 system, and addressed several of the self-CADE issues raised during the previous study (insufficient computer memory, failures during diskette installation and virus scanning, lack of information regarding institutions' progress during data collection).

NPSAS:2000 continued procedures implemented in 1996 to broaden the base of postsecondary student types for whom telephone interview data could be collected. In past

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[2] For results of the NPSAS:2000 field test, which tested procedures and instruments before the start of the full-scale study, see U.S. Department of Education, National Center for Education Statistics. *National Postsecondary Student Aid Study (NPSAS:2000) Field Test Methodology Report*, NCES No. 2000-17, by Melissa R. Biber, Michael W. Link, John A. Riccobono, and Peter H. Siegel. Andrew G. Malizio, project officer. Washington, DC: October 2000.

NPSAS implementations, no mechanism existed for contacting and collecting information by telephone from students with severe hearing impairments; however, both NPSAS:96 and NPSAS:2000 included the use of Telephone Display for the Deaf (TDD) technology to facilitate telephone communications with such students. Also, beginning in NPSAS:96, a separate Spanish translation interview was prepared for administration to students who had insufficient English language proficiency to complete the interview in English or who needed at least some translation of terms by a bilingual interviewer.[3] This accommodation was particularly useful with the students from sampled postsecondary institutions in Puerto Rico.

1.4. Overall Schedule and Products of NPSAS:2000

Table 1-1 includes a schedule of activities for the NPSAS:2000 study. As noted previously, the NPSAS:2000 full-scale study was preceded by a field test, and data collection for the full-scale study spanned the 11-month period from March 2000 to February 2001.

Table 1-1.—Start and end dates for major NPSAS:2000 activities

Activity	Start date[1]	End date[2]
Select institutional sample	10/28/99	01/02/99
Make mail and phone contact with chief administrator	11/24/99	12/15/00
Make mail and phone contact with institutional coordinator	01/05/00	12/04/00
Obtain lists for student sampling	02/17/00	12/13/00
Select student samples	02/17/00	12/13/00
Request/obtain 1999–2000 data from the Central Processing System (CPS)	02/18/00	12/20/00
Preload CPS data into CADE records	03/20/00	02/01/01
Implement CADE record abstraction	03/23/00	02/16/01
Preload CADE into computer-assisted telephone interviewing (CATI) records	05/19/00	02/16/01
Implement CATI	05/22/00	02/28/01
Request/obtain 2000–2001 CPS data	01/12/01	01/12/01
Request/obtain 1999–2000 Pell Grant data	01/05/00	01/22/01

[1] This is the date on which the activity was initiated for the first applicable school and/or its associated students.
[2] This is the date on which the activity was completed for the last applicable school and/or its associated students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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[3] It was expected that Spanish would be the primary language for the largest non-English speaking segment of the sampled population. English/Spanish bilingual interviewers were used in NPSAS:2000 as in previous NPSAS studies to interview Spanish-speaking sample members with limited English proficiency. Cost considerations precluded similar accommodations for other foreign languages.

The following products/reports based on NPSAS:2000 will be available in 2002:

Undergraduate Financing of Postsecondary Education, 1999–2000

This report will focus solely on undergraduate students enrolled during the 1999–2000 school year. It will examine how undergraduate students financed their education. The report will have a section that explores undergraduate borrowing, including information from the National Student Loan Data System on cumulative borrowing. Other tables in the report will summarize total price of attendance, the distribution of financial aid among students by type of institution, and the net price of attendance. This report will contain a special section presenting the distribution of aid among students at different types of institutions with a focus on student borrowing. Supplemental tables for students who borrow at the Stafford loan limit will also be included.

Student Financing of Graduate and Professional Education, 1999–2000

This report will describe the characteristics of graduate and first-professional students enrolled during 1999-2000, including age, race, gender, income, community service, veteran status, and more. Also, the report will describe those graduate and first-professional students who received financial aid, including grants, loans, and work-study from federal, state, institution, or other sources, by selected student characteristics. The report will include a section on graduate research and teaching assistantships.

Profile of Undergraduates at U.S. Postsecondary Institutions, 1999–2000

The profile will describe the characteristics of undergraduates enrolled during 1999–2000, including age, race, gender, income, financial aid receipt, community service, veteran status, and student employment. It will include a special section highlighting the diversity of the undergraduate population, focusing on demographic composition, race/ethnicity, immigration status, and undergraduates with dependents.

NPSAS:2000 Undergraduate and Graduate/First-Professional Data Analysis Systems

The Data Analysis System (DAS) is a Windows-based software application that provides public access to NCES survey data. Two DASs have been created from the NPSAS:2000 data: an undergraduate DAS and a graduate/first-professional DAS. With the DAS, users can generate tables of percentages, means, or correlation coefficients simply by choosing the DAS variables (based on survey questionnaire items) that they would like to appear in a table and indicating what function should be used.

Contact Aurora D'Amico, or visit the website (**http://nces.ed.gov/das/**) to download a NPSAS:2000 DAS application or one of the NPSAS:2000 reports.

Aurora D'Amico
Postsecondary Coop System, Analysis & Dissemination-
Postsecondary Studies Division
Phone: (202) 502-7334
E-mail: Aurora.D'Amico@ed.gov

NPSAS:2000 Restricted use data files

The survey data files used to create variables in the Data Analysis Systems, and the associated electronic codebooks and file documentation, are available to researchers who have obtained a restricted data license from NCES. Information on obtaining a restricted data license may be found in the NCES *Restricted Use Data Procedures Manual*[4], available from Cynthia Barton.

Cynthia L. Barton
Data Security Officer
Phone: (202) 502-7307
E-mail: Cynthia.Barton@ed.gov

Information on the NCES Statistical Standards Program, including Restricted Use Data Licenses Procedures, is available from the NCES website: **http://nces.ed.gov/statprog.**

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[4] U.S. Department of Education. National Center for Education Statistics. *NCES Restricted-Use Data Procedures Manual.* Washington, DC: October 1999.

Chapter 2
Design and Method of NPSAS:2000

Implementation of NPSAS:2000 required a complex set of study tasks and activities, including sequentially dependent data collection operations as well as overlapping development, analysis, documentation and reporting tasks. An RTI-developed Integrated Management System (IMS), used effectively in other large-scale survey projects, was adapted, based on results of an extensive NPSAS field test,[1] for use in the full-scale NPSAS:2000.

2.1 NPSAS:2000 Target Population and Sampling Overview

The basic features of the NPSAS:2000 sampling plan and the resulting samples are summarized in the sections 2.1.1 and 2.1.2. Greater detail is provided in appendix G for the interested reader.

2.1.1 Target Population

The target population for NPSAS:2000 consisted of all students enrolled at any time in postsecondary institutions in the United States or Puerto Rico and which had signed Title IV participation agreements with the U.S. Department of Education making them eligible for the federal student aid programs (Title IV institutions) between July 1, 1999, and June 30, 2000.[2] With one exception, the survey population also was defined as those students who were enrolled at any time between July 1, 1999, and June 30, 2000. The exception occurred if a term or course began after May 31, 2000, and ended after June 30, 2000, then students enrolled only in that term or course were excluded from the survey population.[3] This definition of the survey population differed from previous NPSAS rounds but was more consistent with the definition of the target population. More specific definitions of the institution and student populations are provided in section 2.2.

Though NPSAS:2000 was limited to Title IV institutions, prior NPSAS rounds also surveyed students enrolled at institutions not participating in Title IV aid programs. In addition, for NPSAS:96 and NPSAS:93, the survey population was defined as those students who were enrolled in any term beginning between May 1 and April 30 during the survey year, i.e., 1995–96 and 1992–93, respectively; for NPSAS:90, the students sampled were those enrolled on August 1, 1989; October 15, 1989; February 15, 1990; or June 15, 1990 (however, the June 15 enrollees were not sampled for 4-year institutions because of budgetary limitations); for NPSAS:87, only fall 1986 enrollees were sampled.

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[1] U.S. Department of Education. National Center for Education Statistics. *National Postsecondary Student Aid Study (NPSAS:2000) Field Test Methodology Report*, NCES No. 2000-17, by Melissa R. Biber, Michael W. Link, John A. Riccobono, and Peter H. Siegel. Andrew G. Malizio, project officer. Washington, DC: October 2000.

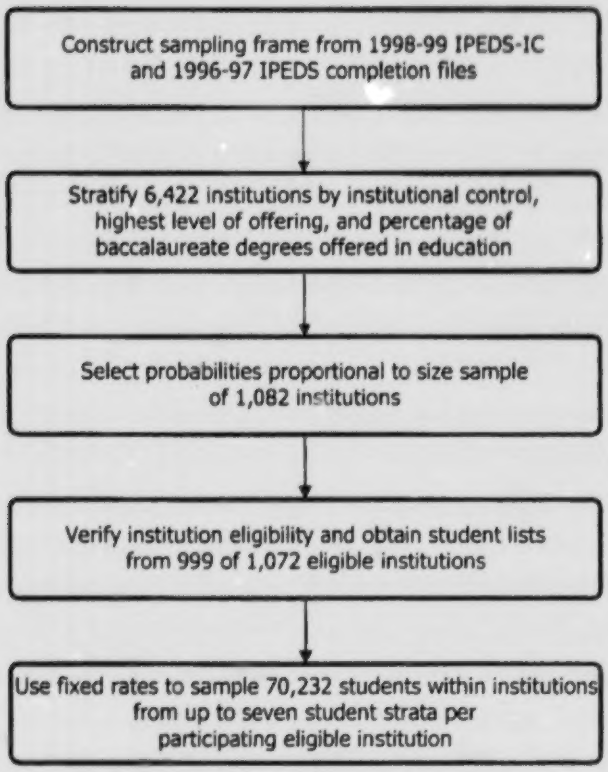
[2] Excluding students who were enrolled in military service academies, were enrolled solely in a General Education Development (GED) program, or were concurrently enrolled in high school.

[3] The target population is the population about which inferences will be made. The survey population is the population actually covered by the sampling frame. Nearly all members of the target population were also members of the survey population; however, the adopted definition of the survey population allowed the student lists needed for sample selection to be obtained before or during June for many institutions (e.g., those on a semester calendar system). Poststratification adjustments of the analysis weights (see Chapter 6) reduce any resulting bias for inferences regarding the target population.

2.1.2 Sample Design Overview

An overview of the sequential statistical sampling process for NPSAS:2000 is provided in figure 2-1. The institutional sampling frame for NPSAS:2000 was constructed from the 1998–99 Integrated Postsecondary Education Data System Institutional Characteristics (IPEDS-IC) file and, because NPSAS:2000 also served as the base-year survey for a Baccalaureate and Beyond longitudinal study, the 1996-97 IPEDS completion file was used to check frame information regarding estimated size of institutional graduating classes. Both of these files were the latest available at the time of NPSAS institutional sampling.

Figure 2-1.—Schematic of sequential NPSAS:2000 sampling operations


Construct sampling frame from 1998-99 IPEDS-IC and 1996-97 IPEDS completion files
Stratify 6,422 institutions by institutional control, highest level of offering, and percentage of baccalaureate degrees offered in education
Select probabilities proportional to size sample of 1,082 institutions
Verify institution eligibility and obtain student lists from 999 of 1,072 eligible institutions
Use fixed rates to sample 70,232 students within institutions from up to seven student strata per participating eligible institution

SOURCE: U.S. Department of Education, National Center for Education Statistics. National Postsecondary Student Aid Study, 1999-2000 (NPSAS:2000).

The IPEDS-IC database provided nearly complete coverage of the institutions in the target population. Listings in the file that were not eligible institutions (e.g., institutions located outside the U.S. and Puerto Rico; central offices; military academies) were deleted from the population file. Additional information for eligible institutions was obtained from the 1996–97 IPEDS completion files. The eligible institutions were then partitioned into 22 institutional strata based on institutional control, highest level of offering, and percentage of baccalaureate degrees awarded in education:

1. Public less-than-2-year
2. Public 2-year
3. Public bachelor's high education[4]
4. Public bachelor's low education
5. Public master's high education
6. Public master's low education
7. Public doctorate-granting high education[5]
8. Public doctorate-granting low education
9. Public first-professional-granting high education
10. Public first-professional-granting low education
11. Private not-for-profit less-than-2-year
12. Private not-for-profit 2-year
13. Private not-for-profit bachelor's high education
14. Private not-for-profit bachelor's low education
15. Private not-for-profit master's high education
16. Private not-for-profit master's low education
17. Private not-for-profit doctorate-granting high education
18. Private not-for-profit doctorate-granting low education
19. Private not-for-profit first-professional-granting high education
20. Private not-for-profit first-professional-granting low education
21. Private for-profit less-than-2-year
22. Private for-profit 2-year or more

A stratified sample of 1,082 institutions was then selected with probabilities proportional to size (pps); some of these institutions subsequently proved to be ineligible and others failed to participate. The sampling frames for selecting sample students were paper-copy and electronic lists of students provided by the sample institutions for those students enrolled in terms or courses of instruction during the previously defined NPSAS year.[6] Student lists were sampled on a flow basis as they were received, using stratified systematic sampling. The seven student sampling strata were as follows:

---

[4] For each category that had a high education and low education breakout, the high education stratum was defined to be the 20 percent of institutions with the highest proportions of their baccalaureate degrees awarded in education (based on the 1996–97 IPEDS completions file). The remaining 80 percent constituted the low education stratum. The purpose of this stratification was to ensure a certain sample size of students going into the teaching profession which is an important analysis domain for the baccalaureate and beyond longitudinal study.

[5] Institutions that awarded first-professional degrees were included in the doctorate-granting stratum.

[6] Quality control checks were performed on each list received from a sample institution, by comparing the numbers of undergraduate, graduate, and first-professional students listed to the "unduplicated" head counts reported for the 1997–98 academic year in the 1998–99 IPEDS-IC file. The number of baccalaureates listed was compared to the counts reported for the 1996–97 academic year in the 1996–97 IPEDS completions file.

1. Students receiving a baccalaureate degree in business[7]
2. Other baccalaureate recipients
3. Other undergraduate students
4. Master's students
5. Doctoral students
6. Other graduate students
7. First-professional students

The list for each student stratum was sampled at a rate designed to provide approximately equal student-level probabilities. Student sampling rates were revised after enough lists had been received to more accurately estimate the overall sample yield. These sampling procedures resulted in selection of 70,232 students.

2.2 NPSAS:2000 Sample Implementation

The goal of all sampling activities was to attain the targeted numbers of eligible sample postsecondary students within each of the specified student and institution strata. An important domain of the student sample was the set of students identified as baccalaureates,[8] who are the baseline cohort for the Baccalaureate and Beyond (B&B) longitudinal study. The desired number of sample students was determined by accounting for expected (from prior NPSAS rounds) rates of nonresponse and ineligibility among sample students and rates of B&B misclassification (as determined from NPSAS:93 and the NPSAS:2000 field test). Since the student samples were selected on a flow basis as sample institutions provided their enrollment lists in order to meet the data collection schedule, the students were sampled at fixed rates. For each institution, these rates were set based on the institution's probability of selection and the overall student stratum sampling rates. The sampling rates were set to meet or exceed the sample sizes shown in table 2-1.

The NPSAS:2000 sample was also designed to obtain at least 30 student CATI respondents from each sample institution that had at least that many eligible students enrolled during the NPSAS year. Consequently, institution sample sizes were determined to achieve an average of approximately 40 or more sample students per institution within each institutional stratum. Given these student sample size goals, the desired number of participating institutions was determined to be 1,008.[9] Based on institutional participation rates obtained in prior NPSAS rounds and the NPSAS:2000 field test, an initial sample of 1,082 institutions was selected.

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[7] Students receiving a baccalaureate degree in business were in a separate stratum so that they would be selected at a lower sampling rate than other baccalaureate recipients, because sampling them at the same rate would result in more students receiving a baccalaureate degree in business than desired.

[8] Students who received their bachelor's degree during the 1999–2000 academic year.

[9] An institution was considered participating if it sent in a usable enrollment list.

Table 2-1.—Target numbers of sample students, by institutional stratum and type of student

Institutional stratum	Total	Baccalaureate	Other undergraduate	Graduate	First-professional
Total	70,266	16,372	40,918	11,657	1,319
Public					
1 Less-than-2-year	1,996	†	1,996	†	
2 2-year	10,976	†	10,976	†	†
Total less-than-4-year	12,972	†	12,972		†
3 Bachelor's high education	236	127	109	†	†
4 Bachelor's low education	923	175	740	†	†
5 Master's high education	2,124	1,223	694	208	†
6 Master's low education	6,640	1,970	3,636	1,042	†
Total 4-year non-doctorate-granting	9,924	3,495	5,180	1,249	†
7 Doctorate-granting high education	2,371	1,229	719	423	†
8 Doctorate-granting low education	5,884	1,496	2,702	1,686	†
9 First-professional-granting high education	3,985	1,983	1,175	764	63
10 First-professional-granting low education	9,900	2,677	4,021	2,776	427
Total 4-year doctorate-granting	22,141	7,386	8,617	5,648	490
Private not-for-profit					
11 Less-than-2-year	601	†	601	†	†
12 2-year	1,201	†	1,201	†	†
Total less-than-4-year	1,802	†	1,802	†	†
13 Bachelor's high education	739	423	315	†	†
14 Bachelor's low education	1,586	583	999	†	†
15 Master's high education	1,595	855	543	197	†
16 Master's low education	3,655	1,049	1,800	810	†
Total 4-year non-doctorate-granting	7,574	2,910	3,658	1,006	†
17 Doctorate-granting high education	781	263	209	309	†
18 Doctorate-granting low education	1,310	262	418	630	†
19 First-professional-granting high education	3,216	959	1,054	994	210
20 First-professional-granting low education	4,013	956	856	1,589	612
Total 4-year doctorate-granting	9,320	2,439	2,538	3,521	822
Private for-profit					
21 Less-than-2-year	4,328	†	4,328	†	†
22 2-year or more	2,203	141	1,823	232	7
Total private for-profit	6,531	141	6,151	232	7

†Not applicable.

NOTE: "High education" refers to the 20 percent of institutions with the highest proportions of their baccalaureate degrees awarded in education (based on the 1996–97 IPEDS completions file). The remaining 80 percent of institutions were classified as "low education" (i.e., having a lower proportion of baccalaureate degrees awarded in education).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

2.2.1 Institutional Sample

The target population for NPSAS:2000 included nearly all Title IV participating postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico.[10]

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[10] Title IV participating institutions excluded from the target population were the five U.S. service academies.

To be eligible for NPSAS:2000, an institution was required, during the 1999–2000 academic year, to:[11]

- offer an educational program designed for persons who had completed secondary education;
- offer more than just correspondence courses;
- offer at least one academic, occupational, or vocational program of study lasting at least 3 months or 300 clock hours;
- offer courses that were open to more than the employees or members of the company or group (e.g., union) that administered the institution;
- be located in the 50 states, the District of Columbia, or Puerto Rico;
- be other than a U.S. Service Academy;[12] and
- have a signed Title IV participation agreement with the U.S. Department of Education.

As indicated above, institutions providing only avocational, recreational, or remedial courses or only in-house courses for their own employees were excluded.

The student sample was allocated to the separate applicable institutional and student sampling strata, defined above. Student sampling rates, which were used to compute institution-level composite measures of size, were based on 1998–99 IPEDS IC and 1996–97 IPEDS completions file counts and the required sample sizes (see appendix G for details).

An independent sample of institutions was selected for each institutional stratum using Chromy's[13] sequential probability minimum replacement (pmr) sampling algorithm to select institutions with probabilities proportional to their computed measures of size. However, rather than multiple selections of sample institutions being allowed,[14] those with expected frequencies of selection greater than unity (1.00) were selected with certainty. The remainder of the institutional sample was selected from the remaining institutions within each stratum. The sampling algorithm was implemented with a random start for each institutional stratum to ensure the positive pairwise probabilities of selection that were needed for proper variance estimation.[15]

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[11] The listed eligibility requirements are consistent with those used in previous NPSAS rounds, except for the last one.

[12] These academies were not eligible for this financial aid study because of their unique funding/tuition base.

[13] J.R. Chromy. "Sequential Sample Selection Methods." *Proceedings of the American Statistical Association Section on Survey Research Methods of the American Statistical Association*, 1979, 401–406.

[14] Precluding institutions with multiple selections at the first stage of sampling made it unnecessary to select multiple second-stage samples of students.

[15] J.R. Chromy (1981). Variance Estimators for a Sequential Sample Selection Procedure. In. D. Krewski, R. Platek, and J.N.K. Rao (Eds.), *Current Top IMS in Survey Sampling* (pp. 329-347). New York: Academic Press.

The numbers of certainty and noncertainty schools selected, within each of the 22 institutional strata, are shown in table 2-2. Within each institutional stratum, additional implicit stratification was accomplished by sorting the stratum sampling frame in a serpentine manner.[16] For less-than-2-year, 2-year, and private for-profit institutions, the implicit strata were: (1) institutional level of offering (where levels had been collapsed to form strata); (2) the OBE Region from the IPEDS IC file (Bureau of Economic Analysis of the U.S. Department of Commerce Region);[17] (3) the Federal Information Processing Standard (FIPS) state code; and (4) the institution measure of size. For public 4-year and private not-for-profit 4-year institutions, the implicit strata were: (1) Carnegie classifications of postsecondary institutions or groupings of Carnegie classifications; (2) historically black colleges and universities (HBCU) indicator; (3) the Region from the IPEDS-IC file; and (4) the institution measure of size. The objectives of this additional, implicit stratification were to approximate proportional representation of institutions on these measures. Table 2-3 shows that the regional distribution of the sample is consistent with the sampling frame.

2.2.2 Student Sample

The postsecondary students eligible for NPSAS:2000 were those who attended a NPSAS-eligible institution during the 1999–2000 academic year and who were

- enrolled in *either* (1) an academic program; (2) at least one course for credit that could be applied toward fulfilling the requirements for an academic degree; *or* (3) an occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award;
- not concurrently enrolled in high school; and
- not enrolled *solely* in a GED or other high school completion program.

Each sampled institution that was verified as NPSAS-eligible was asked to provide lists of all its students who satisfied all the NPSAS eligibility conditions, preferably "unduplicated" (i.e., each student's name appeared only once) electronic lists (sent via e-mail, diskette, CD-ROM, or file transfer protocol [FTP]), together with identifying and classifying information (see Section 2.2.3. below). Although electronic files were preferred, the preferences of sample institutions were accommodated, and whatever type(s) of student list(s) they were able to provide were accepted, as long as they were complete. Separate, "unduplicated" lists were requested for baccalaureate business, baccalaureate nonbusiness, other undergraduate (i.e., non-baccalaureate undergraduates), master's, doctoral, other graduate, and first-professional students (the sampling strata) from institutions providing paper-copy lists. As expected, however, many institutions

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[16] R.L Williams, and J.R Chromy. "SAS Sample Selection MACROs." *Proceedings of the Fifth Annual SAS Users Group International Conference*, 1980, 392–396.

[17] For sorting purposes, Alaska and Hawaii were combined with Puerto Rico in the Outlying Areas region rather than in the Far West region.

Table 2-2.—Institutional sampling rates and number of certainty and noncertainty institutions sampled, by institutional stratum

Institutional stratum[1]		Size of universe[2]	Sampling Rate	Number of sample institutions		
				Total[3]	Certainty	Noncertainty
Total		6,422	0.17	1,082	286	796
Public						
1	Less-than-2-year	255	0.14	34	8	26
2	2-year	1,208	0.16	198	9	189
Total less-than-4-year		1,463	0.16	232	17	215
3	Bachelor's high education	18	0.29	5	0	5
4	Bachelor's low education	69	0.27	19	1	18
5	Master's high education	51	0.49	25	2	23
6	Master's low education	196	0.40	78	6	72
Total 4-year non-doctorate-granting		334	0.38	127	9	118
7	Doctorate-granting high education	25	1.00	25	25	0
8	Doctorate-granting low education	82	0.77	63	31	32
9	First-professional-granting high education	29	1.00	29	29	0
10	First-professional-granting low education	115	0.89	103	88	15
Total 4-year doctorate-granting		251	0.88	220	173	47
Private not-for-profit						
11	Less-than-2-year	112	0.10	12	0	12
12	2-year	314	0.07	23	2	21
Total less-than-4-year		426	0.08	35	2	33
13	Bachelor's high education	112	0.15	17	0	17
14	Bachelor's low education	402	0.09	37	0	37
15	Master's high education	120	0.31	37	0	37
16	Master's low education	414	0.20	82	6	76
Total 4-year non-doctorate-granting		1,048	0.16	173	6	167
17	Doctorate-granting high education	24	0.66	16	7	9
18	Doctorate-granting low education	88	0.31	27	4	23
19	First-professional-granting high education	80	0.71	57	32	25
20	First-professional-granting low education	294	0.23	68	34	34
Total 4-year doctorate-granting		486	0.35	168	77	91
Private for-profit						
21	Less-than-2-year	1,386	0.06	77	0	77
22	2-year or more	1,028	0.05	50	2	48
Total private for-profit		2,414	0.05	127	2	125

[1] Stratum reflects institutional categorization as determined from the 1998–99 IPEDS IC file; some errors in this classification were uncovered when institutions were contacted.

[2] Based on the 1998–99 IPEDS IC file.

[3] During institutional contacting, it was discovered that part of one school had recently split off and formed a separate institution. Both institutions were included in the sample, adding another institution to stratum 10, so the actual total sample size is 1,083.

NOTE: "High education" refers to the 20 percent of institutions with the highest proportions of their baccalaureate degrees awarded in education (based on the 1996–97 IPEDS completions file). The remaining 80 percent of institutions were classified as "low education" (i.e., having a lower proportion of baccalaureate degrees awarded in education).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 2-3.—Distribution of NPSAS:2000 institutional sample, by region

Region[1]	Sample institutions		IPEDS institutions[2]	
	Number	Percent	Number	Percent
1. New England	70	6.5	394	6.1
2. Mid East	197	18.2	1,147	17.9
3. Great Lakes	163	15.1	945	14.7
4. Plains	85	7.9	584	9.1
5. Southeast	223	20.6	1,503	23.4
6. Southwest	104	9.6	623	9.7
7. Rocky Mountains	40	3.7	214	3.3
8. Far West	178	16.5	887	13.8
9. Outlying Areas	22	2.0	125	2.0

[1] New England includes CT, ME, MA, NH, RI, VT; Mid East includes DE, DC, MD NJ, NY, PA; Great Lakes includes IL, IN, MI, OH, WI; Plains includes IA, KS, MN, MO, NE, ND, SD; Southeast includes AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV; Southwest includes AZ, NM, OK, TX; Rocky Mountains includes CO, ID, MT, UT, WY; Far West includes AK, CA, HI, NV, OR, WA; and Outlying Areas includes PR.

[2] Counts obtained from the sampling frame based on the 1998–99 IPEDS IC file.

NOTE: Details may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

sent separate lists for each term or course of instruction, in which cases an individual student's name could appear on more than one list. In such cases, the samples were "unduplicated" to ensure that each student received only one chance of selection.[18]

As student lists were received from institutions, students were sampled. Stratified systematic sampling was used to ensure comparable sampling procedures for both paper-copy and electronic lists. In the case of duplicated paper-copy lists, a stratified systematic sample was selected from each list provided (typically separate lists by term) and the samples selected were "unduplicated" against master lists (see appendix G).[19] After the sample of students had been selected for an institution, Social Security numbers (SSNs) of those sampled were compared to those of students who had already been selected from other institutions to eliminate cross-institution duplication. Multiplicity adjustments in the sample weighting described in more detail in Chapter 6 accounted for the fact that any students who attended more than one institution during the NPSAS year had more than one chance of selection.

Initial student sampling rates were calculated for each sample institution using sampling rates (see appendix G) designed to generate approximately equal probabilities of selection within the ultimate institution-by-student sampling strata. However, these rates were sometimes modified for reasons listed below.

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[18] Electronic lists were "unduplicated" by sorting on the student identification (ID) number and deleting duplicates prior to sample selection.

[19] The baccalaureates were given precedence since a student receiving a bachelor's degree was sampled as a baccalaureate regardless of student type. Next, the fall term was given precedence in this process for comparability with NPSAS:87. If the institution did not have standard terms, other orderings of the student lists were used to achieve unduplication of the sample.

- The student sampling rates were increased, as needed, so that the sample size achieved at each sample institution would be at least 40 sample students, where possible.
- The student sampling rates were decreased if the sample size was more than 50 greater than the institution had been told to expect, which was based on the sampling rate applied to the enrollment count on the sampling frame.[20]
- The sample yield was monitored throughout the months during which student lists were received, and the student sampling rates were adjusted periodically for institutions for which sample selection had not yet been performed to ensure that the desired student sample sizes were achieved.

These adjustments to the initial sampling rates (especially the first two types of adjustments) resulted in some additional variability in the student sampling rates and, hence, in some increase in survey design effects (variance inflation—see Chapter 6).

The planned and achieved sample sizes by student stratum and level of offering are shown in table 2-4. The actual sample sizes achieved in total and by school type and student stratum are shown in table 2-5. Table 2-4 shows that the overall sample yield was very close to what was planned (70,232 students as compared to the target of 70,266). This table also shows that overall there were more baccalaureate, master's, other graduate, and first-professional students in the sample than planned, and there were fewer doctoral students than planned.

Table 2-4.—Planned and achieved NPSAS:2000 student samples, by student stratum and level of offering

Student stratum[1]	Institutional level[2]	Students sampled		
		Number expected[3]	Number achieved[4]	Percent[5]
Total	All institutions	70,266	70,232	100.0
Baccalaureate business	4-year	1,365	1,475	108.1
Baccalaureate other	4-year	15,006	15,147	100.9
Other undergraduate	Subtotal	40,918	40,981	100.2
	Less-than-2-year	6,925	6,665	96.2
	2- to 3-year	12,653	13,240	104.6
	4+ year	21,340	21,076	98.8
Master's	4-year	5,820	5,964	102.5
Doctor's	4-year	4,543	3,946	86.9
Other graduate	4-year	1,293	1,369	105.9
First-professional	4-year	1,319	1,350	102.4

[1] As expected, the sampling frames misclassified some individual students as to baccalaureate, undergraduate, graduate, and first-professional status; statistics presented in this table are based on the sampling frame classification.
[2] Institutional level is based on level confirmed by institution during school contacting.
[3] Based on sample allocation, 1998–99 IPEDS IC file enrollment counts, and 1996–97 IPEDS completions file baccalaureate counts. Numbers may not sum to total due to rounding.
[4] The student sample was drawn from 999 institutions determined to be eligible and providing enrollment lists.
[5] Percent reported reflects the ratio of "achieved" to "expected."
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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[20] This was to facilitate continued participation by the institutions for CADE data abstraction.

Table 2-5.—Initial classification of NPSAS:2000 student sample, by type of institution and student stratum

Institution type	Total sample[1]		Student sampling stratum[2]							
			Baccalaureate sample[3]		Other undergraduate sample		Graduate sample[3]		First-professional sample	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All institutions	70,232	100.0	16,622	100.0	40,981	100.0	11,279	100.0	1,350	100.0
Institutional level										
Less-than-2-year	6,665	9.5	†	†	6,665	16.3	†	†	†	†
2-year	13,240	18.9	†	†	13,240	32.3	†	†	†	†
4-year non-doctorate-granting	18,754	26.7	6,645	40.0	9,824	24.0	2,285	20.3	†	†
4-year doctorate-granting	31,573	45.0	9,977	60.0	11,252	27.5	8,994	79.7	1,350	100.0
Institutional control										
Public	43,748	62.3	10,745	64.6	25,974	63.4	6,537	58.0	492	36.4
Private not-for-profit	19,372	27.6	5,629	33.9	8,472	20.7	4,413	39.1	858	63.6
Private for-profit	7,112	10.1	248	1.5	6,535	16.0	329	2.9	†	†
Institutional sector										
Public less-than-2-year	1,527	2.2	†	†	1,527	3.7	†	†	†	†
Public 2-year	10,663	15.2	†	†	10,663	26.0	†	†	†	†
Public 4-year non-doctorate-granting	9,884	14.1	3,464	20.8	5,208	12.7	1,212	10.8	†	†
Public 4-year doctorate-granting	21,674	30.9	7,281	43.8	8,576	20.9	5,325	47.2	492	36.4
Private not-for-profit 2-year or less	1,836	2.6	†	†	1,836	4.5	†	†	†	†
Private not-for-profit 4-year non-doctorate-granting	8,005	11.4	3,033	18.3	4,043	9.9	929	8.2	†	†
Private not-for-profit 4-year doctorate-granting	9,531	13.6	2,596	15.6	2,593	6.3	3,484	30.9	858	63.6
Private for-profit less-than-2-year	4,523	6.4	†	†	4,523	11.0	†	†	†	†
Private for-profit 2-year or more	2,589	3.7	248	1.5	2,012	4.9	329	2.9	†	†

†Not applicable.

[1] The student sample was drawn from 999 institutions determined to be eligible and providing enrollment lists.

[2] As expected, the sampling frames misclassified some individual students as to baccalaureate, undergraduate, graduate, and first-professional status; statistics presented in this table are based on the sampling frame classification.

[3] The two baccalaureate strata have been combined and the master's, doctorate, and other graduate strata have been combined.

NOTE: Details may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

2.2.3 Institutional Enlistment and Student List Acquisition and Sampling

Once institutions were sampled, attempts were made to contact the chief administrator of the selected institutions to verify institutional eligibility, solicit participation of eligible institutions, and request appointment of an Institutional Coordinator through which subsequent communication with the institution would be directed. The initial letter on U.S. Department of Education (ED) letterhead included a study fact sheet and endorsement letters, as appropriate for that institution, from the National Association of Financial Aid Administrators (NASFAA), the American Association of College Registrars and Admissions Officers (AACRAO), the Career College Association (CCA), and the National Accrediting Commission of Cosmetology Arts and Sciences (NACCAS). Concurrently, NASFAA mailed a separate letter directly to the financial aid officers of all member institutions sampled urging participation. (Copies of these letters and attachments, as well as other correspondence mailed to sampled institutions or students during the course of the full-scale survey are included in appendix B.) Follow-up telephone calls were made to the chief administrator one week after the mailing; if the IC had not been named by that time, the administrator was urged to name an Institutional Coordinator (with varying degrees of success) during the telephone conversation.

Separate mailings to the Institutional Coordinators (containing all materials included in the initial mailing to the chief administrator) were initiated on a flow basis, as the Institutional Coordinators were designated. Follow-up telephone calls were, again, initiated one week following the mailing (the initial contact with the Institutional Coordinators typically involved a series of calls, including refusal conversion calls, since no substitution of refusing institutions was employed). Institutional coordinators were advised of what would be expected from the institution and asked to verify the IPEDS classification (institutional control and highest level of offering) and the calendar system used (including dates that terms started). Institutional Coordinators also were asked to (1) provide information on the institution's record-keeping approaches (including identifying the physical on-campus locations of records needed for the subsequent record abstraction procedures), (2) identify their PC capabilities for operating the CADE software, and (3) set a date by which the school would provide student enrollment lists.

The list(s) requested (preferably a single "unduplicated" electronic list) were to contain all eligible students enrolled in any term within the study-defined year. (Sampled schools with additional NPSAS-year terms starting after the date of the request obviously could not provide complete lists until after the last applicable term began.) The data items requested for each listed student were

- full name;
- student identification (ID) number;
- Social Security number (possibly identical with student ID);
- educational level—undergraduate, master's, doctoral, other graduate, or first professional—during the *last* term of enrollment during the study-defined year,
- for baccalaureate students major field of study for which the baccalaureate degree was or will be awarded; and

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- Classification of Instruction Program (CIP) code for the student's major.

Definitions of types of lists and information preferred, as well as instructions for preparing different lists, were included in the initial IC letter and further clarified, as needed, in follow-up telephone conversations. In such subsequent telephone contacts, contractor staff worked closely with the IC to determine the best reasonable alternative lists and student information that could be provided by the institution.

Prompting telephone calls were made to institutions that had not provided lists by one week following the most recent delivery date previously agreed upon by the IC. Throughout the list acquisition process, attempts were made by the contractor to accommodate school constraints and to reduce their burden, including contractor "unduplication" of lists. Where requested, institutions were reimbursed for personnel and computer time required to prepare student sampling lists.

Several checks on quality and completeness of student lists were implemented before the sample students were selected. Institutions providing lists that failed these checks were called to rectify the detected problems. Completeness checks were failed if any of the following conditions existed:

- Baccalaureate recipients/graduating seniors were not identified (unless the institution was less-than-4-years or explicitly indicated that no such students existed in the school).
- Student level—undergraduate, master's, doctoral, other graduate, or first professional—was not clearly identified.
- Major fields of study or CIP codes were not clearly identified for baccalaureates.

Quality checks were performed by checking the "unduplicated" count from provided lists against the "unduplicated" counts from IPEDS and completions files. For applicable institutions, separate checks were made for baccalaureate recipients, other undergraduates, graduate, and first-professional students; for institutions serving only undergraduates (and no baccalaureates), checks were made against total enrollment. The institution failed the check if the count for any "unduplicated" list differed by at least 25 percent from the IPEDS count.[21]

2.3 Data Collection and Operational Design

NPSAS:2000 involved a multistage effort to collect information related to student aid. An initial NPSAS:2000 data collection stage collected electronic student aid report (Institutional Student Information Report, or ISIR) information directly from the U.S. Department of Education Central Processing System (CPS) for federal financial aid applications.[22] The second stage involved abstracting information from the student's records at the school from which he/she was sampled, using a computer-assisted data entry (CADE) system. In the third stage, interviews were conducted with sampled students, primarily using a computer-assisted telephone interviewing (CATI) procedure. Computer-assisted personal interviewing (CAPI) procedures, using field interviewers, were also used for the first time on a NPSAS study, to help reduce the level of nonresponse to CATI.

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[21] If provided lists were not "unduplicated," the contractor estimated the "unduplicated" total by applying an empirically determined multiplicity factor (0.50) to the count over provided lists; in these cases, the critical difference also was relaxed to at least 30 percent.

[22] The contractor for this service was National Computer Systems (NCS). Students completed a Free Application for Federal Student Aid (FAFSA), which was mailed to the CPS contractor; this information was entered into the computer file and electronic versions of the Institutional Student Information Record (ISIR) were created. The ISIR information was made available to all institutions that the student indicated on the FAFSA.

A schematic of the operational flow of major data collection components of the NPSAS:2000 study is shown in figure 2-2 and discussed below. To meet established dates for conclusion of all activities, while accommodating both differential dates at which student sampling could be initiated and differential timeliness of institutional turnaround, not all stages were implemented at the same time at all institutions. In fact, the only fixed points in operations were (1) selection of the institutional sample plus the initial institutional mailings and verification calls, and (2) cutoff of interviewing. Start and end dates for the significant study activities were shown earlier in table 1-1.

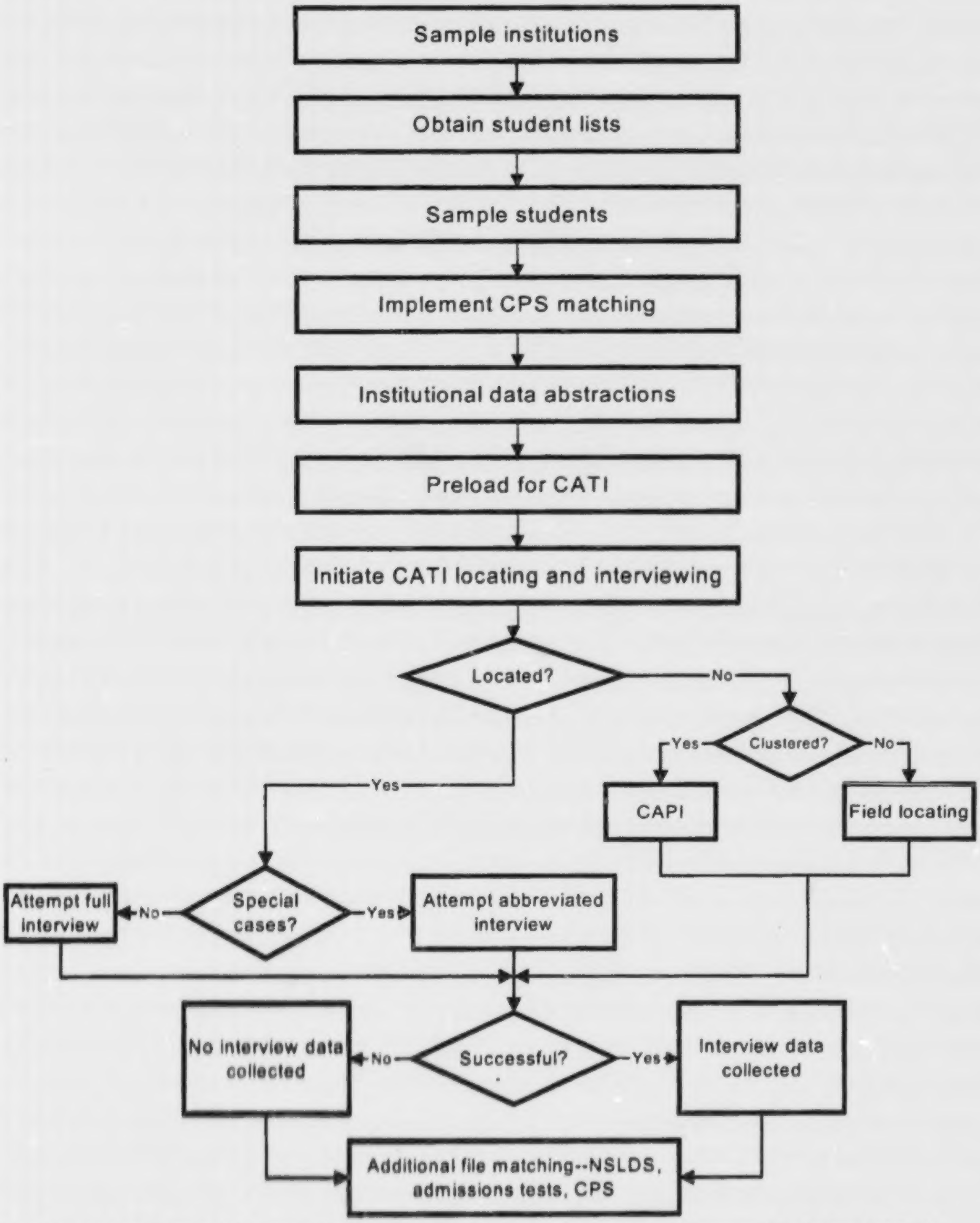
2.3.1 Overview of Data Collection Instruments and Extant Data Sources

As noted previously, some study data were obtained from extant databases. These additional data sources served several useful functions. First, they provided information that could not be collected from the institutions or the students. Second, they provided a way to "fill in" data that was obtained in institutional record abstraction or the student interview but was missing for individual sample members (e.g., demographics). Also, additional data sources served as a way to check or confirm information obtained from student records or interviews.

Information related to applications for federal financial aid was obtained (for two academic years) from ED's central processing system, the CPS. Additionally, data on the nature and amounts of received Pell grant or federal student loans were obtained from the National Student Loan Data System (NSLDS) databases maintained by ED. The NSLDS Pell grant and loan files that were accessed included information for the 1999–2000 academic year as well as a complete federal grant or loan history for each applicable student. In addition to information regarding student aid receipt, data were obtained from Educational Testing Service (ETS) for the SAT, and from ACT for the ACT assessment, which included test score data as well as additional demographic information and some information regarding educational aspirations.

Obtaining Central Processing System (CPS) information. To reduce institutional burden in subsequent data collections, the NPSAS:2000 contractor, with the assistance of NCES, arranged to obtain information from the Central Processing System (which was operated for the U.S. Department of Education by a separate contractor, National Computer Systems [NCS]), to access certain information provided by all federal financial aid applicants who had been selected in the sample. Students give this information to the CPS contractor on a Free Application for Federal Student Aid (FAFSA) form; it is then converted to electronic form, analyzed, and provided to involved schools (and other approved parties).

Figure 2-2.—Flow of major data collection components for the NPSAS:2000 study


Sample institutions
Obtain student lists
Sample students
Implement CPS matching
Institutional data abstractions
Preload for CATI
Initiate CATI locating and interviewing
Located?
No
Clustered?
Yes
No
CAPI
Field locating
Yes
Attempt full interview
No
Special cases?
Yes
Attempt abbreviated interview
No interview data collected
No
Successful?
Yes
Interview data collected
Additional file matching--NSLDS, admissions tests, CPS

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

CADE data abstraction from students' institutional records. Data from sampled students' records at the NPSAS institution were collected using procedures similar to those successfully tested and implemented during NPSAS:96. Specifically, a CADE software system using version 4.3 of the Computer Assisted Survey Execution System (CASES)[23], was developed for use in collecting data from student records. The data elements included in the Web-CADE system (described in more detail in chapter 3) were identical to those included in the laptop-based CADE system used by the RTI field data collectors (field-CADE).

The CADE record abstraction process began when a student sample had been selected and transmitted to the Central Processing System for obtaining financial aid application data. Upon completion of the CPS matching (typically a 48-hour turnaround), a number of data elements were preloaded into the CADE database, thus initializing the CADE system. These preloaded elements included an indicator of whether the student had been matched successfully to the CPS system, as well as selected CPS variables for use in CADE software edit checks. In addition, the system was customized for each institution by preloading of the names of up to 10 institution financial aid programs and up to 10 state financial aid programs, for use in identifying aid received by students.

As was the case in NPSAS:96, institutions could choose either to enter the data themselves or to have an RTI-employed field data collector enter the data. Institutions were encouraged to use their own staff for this data collection (with compensation for staff time, when requested), since this minimized the overall cost of the data collection. The NPSAS:2000 field test demonstrated the effectiveness and user-friendliness of the Web-CADE system, providing institutions with further encouragement to complete the data collection themselves.

Once CADE was initialized for a particular institution, the Institutional Coordinator was notified by telephone that the CADE data collection could begin. Coordinators who had previously indicated a willingness to complete the data collection via Web-CADE were provided with a user name and password to gain access to the Web-CADE systems. As a security measure, each coordinator was asked to provide a "lost-password prompting question and answer"—that is, if they forgot their password and had to call in for a reminder, the personalized question was posed and the password was provided when they successfully answered the question. Field-CADE institutions were also notified by telephone of CADE initialization, at which time an appointment was made for a field data collector to visit the institution.

The CADE software (the full contents of which appear in appendix E) was structured into eight sections:

1. locating – for collecting address and phone information for students, students' parents, and other contacts;
2. characteristics – for collecting demographic data such as sex, race, and marital status;

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[23] This software was produced by the Computer-Assisted Survey Methods Program (CSM) of the University of California at Berkeley, May 1998.

3. admissions – for collecting scores for undergraduate, graduate, and first-professional admissions tests;
4. enrollment – for collecting terms of enrollment, degree program, and field of study;
5. tuition – for collecting tuition data for the terms of enrollment;
6. financial aid awards – for collecting financial aid data for aid recipients;
7. need analysis – for collecting student financial aid budget data for aid applicants; and
8. ISIR – for collecting name and SSN for students not previously matched successfully to CPS, but for whom an ISIR was available, indicating the student had applied for federal financial aid for the study year.

Because the Web-CADE database was resident on an RTI Web server, daily status reports summarizing the progress of the Web-CADE institutions were generated and posted on the Integrated Management System (IMS). However, periodic calls were placed to the coordinators to inquire as to their progress, thereby prompting the institutions to complete the record abstraction. In general, status reports indicated that schools were typically slow in beginning the CADE task (often waiting many weeks after system initialization before starting data collection), but once they began they tended to complete the task relatively quickly.

Student CATI/CAPI interviews. Student interviews were conducted primarily by telephone, and occasionally in person, using CATI/CAPI technology. Like CADE, CATI/CAPI was developed using version 4.3 of the Computer-Assisted Survey Execution System (CASES) software to facilitate preloading full-screen data entry and editing of "matrix-type" questions. The CATI/CAPI system presented interviewers with screens of questions to be asked of the respondents, with the software guiding the interviewer and respondent through the interview, automatically skipping inapplicable questions based on prior response patterns or suggesting appropriate wording for probes should a respondent pause or seem uncertain in answering a question.

To reduce interview burden and to guide the interview through appropriate branchings (e.g., questions appropriate only for graduate students), considerable information was preloaded into the CATI records before the interviews. Such preloaded information included (1) data previously collected through CPS and/or CADE; and (2) information from the sampling file (e.g., name, Social Security number, school name, school and student stratum). In a number of instances, specific questionnaire items were not asked (or were only verified) if that information had been collected previously. Data were preloaded into CATI on a flow basis, as CADE results were received from the institutions.

Features of the CATI system that facilitated smooth and appropriate conduct of the interview included:

- extensive use of appropriate branching of interviewees based on preloaded information or responses to questions asked previously in the interview;

- extensive use of "fill" features in screen presentations of questions to be asked by interviewers (i.e., filling in part of a question with preloaded data or a previously provided response—that is, instead of asking the respondent something about "second postsecondary institution that they attended," the question would be presented with the name of the institution embedded in the screen wording);
- a "breakoff/resume" feature allowing interview continuation after a breakoff to move automatically to the next applicable question for the respondent; and
- provision of context-sensitive "help" screens (available with a single keyboard entry) to provide the interviewer with information about particular questions to help clarify the question's intent.

Additionally, online coding programs developed by NCES (for industry/occupation, IPEDS, and field of study coding) were embedded in the overall interview administration system. These allowed standard coding of verbatim responses while the respondent was still available to assist.

The student CATI interview consisted of seven sections that were administered sequentially (see figure 2-3).[24] The sections were ordered so that important information was collected early in case the respondent broke off the interview before completion. A facsimile student interview is provided in appendix D.

Cases not completed in CATI (i.e., refusing and/or unlocatable cases) were assessed for assignment to field staff. If the case was in an identified geographic cluster, it was assigned to a field interviewer. The field interviewer then attempted to locate the student and complete the interview using CAPI. If the case was not in an identified cluster, it was assigned to a field locator. The field locator then attempted to locate the student and convince the student to call an 800 number to complete the interview in CATI.

Results of CATI and CAPI interviewing were monitored daily through the study Integrated Management System (IMS). Daily reports of production, with revised projections of future production to satisfy study requirements, were available to both NCES and contractor staff.

Two sets of abbreviated interviews were conducted in special cases. First, the planned reliability reinterview study used an interview containing only a small subset of the items in the full student interview. Second, an abbreviated interview was developed in English and Spanish (containing only selected items) for telephone administration to those who were Spanish-speaking only[25] sample members or for use in refusal conversion. Facsimiles of the reliability interview and the abbreviated interview are provided in appendix F.

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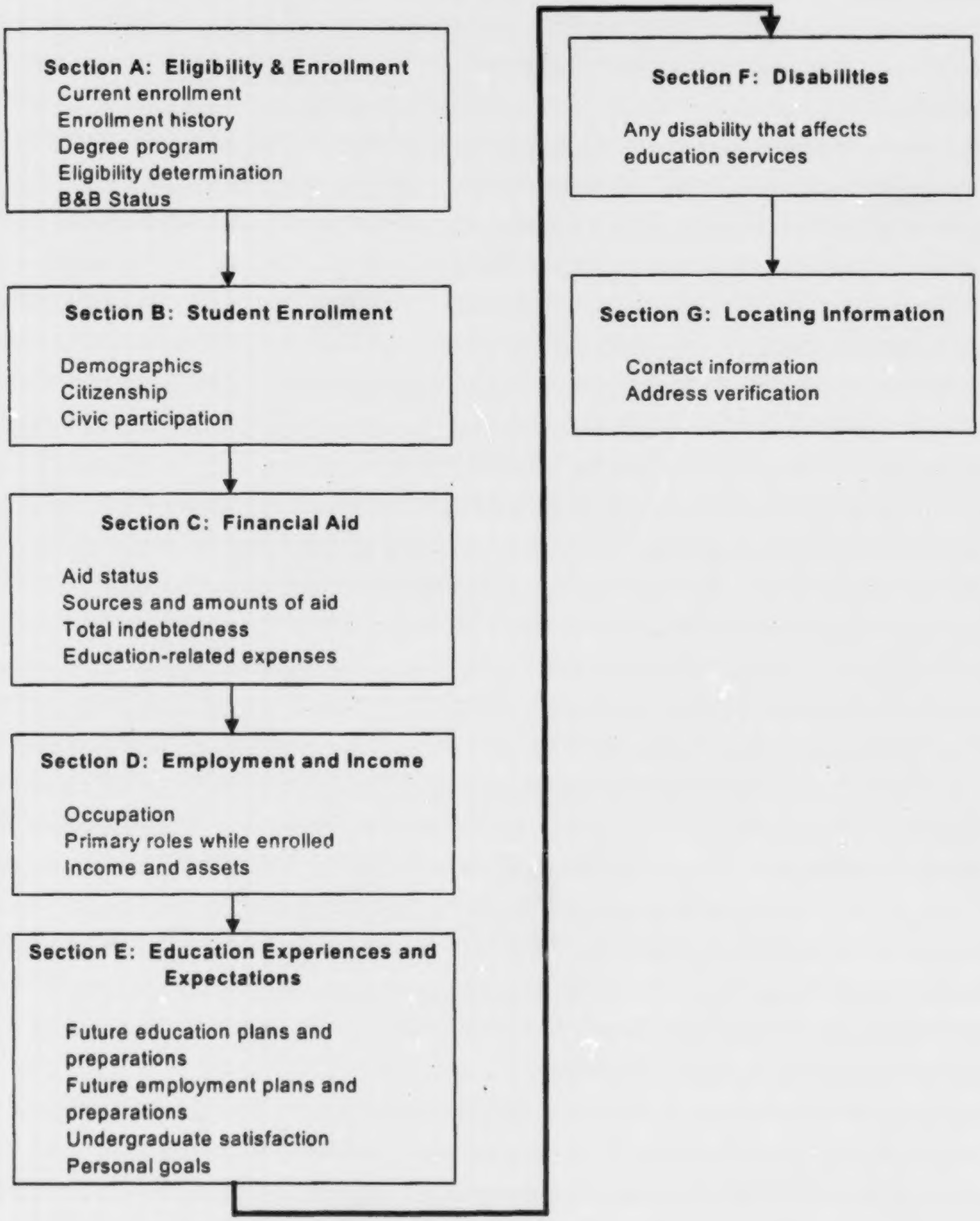
[24] While the logical flow within an interview is generally constrained to be linear (with forward branching as applicable), this is even more important in CATI, where previously supplied responses control subsequent branching items. Nonetheless, standard features were available to allow interviewers to back up in the interview to change prior responses based on information provided subsequently.

[25] Spanish speakers who could speak some English were guided through the full interview by bilingual interviewers. However, translation "on the fly" of the full interview to one who spoke only Spanish was considered inappropriate, and thus the Spanish translation of the abbreviated interview was administered in these cases.

Figure 2-3.—Structure and flow of NPSAS:2000 student CATI


Section A: Eligibility & Enrollment
Current enrollment
Enrollment history
Degree program
Eligibility determination
B&B Status
Section B: Student Enrollment
Demographics
Citizenship
Civic participation
Section C: Financial Aid
Aid status
Sources and amounts of aid
Total indebtedness
Education-related expenses
Section D: Employment and Income
Occupation
Primary roles while enrolled
Income and assets
Section E: Education Experiences and Expectations
Future education plans and preparations
Future employment plans and preparations
Undergraduate satisfaction
Personal goals
Section F: Disabilities
Any disability that affects education services
Section G: Locating Information
Contact information
Address verification

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Other *post hoc* student record data obtained. The electronic data interchange with the National Student Loan Data System (NSLDS), (including both loan and Pell grant files), ACT database, and ETS SAT files was initiated toward the end of CATI operations. As with the previously described procedures with CPS, matching of students to these files required Social Security numbers. At the time of these requests, apparently valid SSNs were available for 69,449 sample members, the number subsequently submitted for all attempted matches and associated data downloads.[26] In addition to SSNs, name and date of birth were submitted to ETS for SAT matching and to NSLDS for Loan and Pell matching. For ACT, sex and date first enrolled (if available) were included in the file along with name and date of birth. These variables assisted the data vendors in performing confirmatory data quality checks. All matching processes were initiated by RTI staff providing a file with one record per sample member with the requested data on a CD-ROM to the database system. A successful match with the NSLDS loan and Pell database required that the student have a valid application record within the database. Similarly, a successful match with the ACT and SAT databases required that the student have a valid record with the test databases. Additional data (e.g., date of birth) was used when necessary to increase the likelihood of a successful and accurate match.

2.3.2 Student Locating

The basic NPSAS:2000 design involved tracing sample members to their current location prior to conducting a computer-assisted telephone interview or a computer-assisted personal interview with them.

Pre-CATI locating. Locating information obtained during the institutional CADE phase of the study was incorporated into the locator database. The data files were updated in batch mode to the National Change of Address (NCOA)[27] system and Telematch[28] on a flow basis. After the locator database had been updated with the new information, a lead letter packet was mailed to the best address for the sample member. This mailing included a standard lead letter and a study leaflet. These mailings occurred on a flow basis twice a week beginning in May 2000 and continued throughout the data collection period. The most current information for the student and any other contacts were then preloaded into the CATI system to assist the interviewers in locating the sample members.

CATI-internal locating. When assigned a case, the telephone interviewer called the telephone number designated by the system as the best number (i.e., the number among all available locator numbers that appeared to have the greatest potential for contacting the sample member) and attempted to interview the designated sample member. When the person answering the call said that the sample member could not be reached at that number, the interviewer asked the person how to contact the sample member. If this query did not provide the information needed, the interviewer initiated tracing procedures, using all information available to call other contact persons in an attempt to locate the sample member. When all tracing options available to the interviewer were exhausted without success, the case was assigned to intensive tracing via FastData[29], Tracing Operations Unit (TOPS)[30], or field interviewers/locators. The latter two intensive tracing steps are described below.

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[26] Of these, 8,120 were ultimately determined to be nonrespondents.

[27] NCOA is a database consisting of change of address data submitted to the U.S. Postal Service. Almost 100 million records are updated every 2 weeks and stored for 3 years.

[28] Telematch is a computerized residential telephone number look-up service consisting of over 65 million listings, over one million not-yet-published numbers of new movers, and over 10 million businesses. Telematch uses a name, street address, and ZIP code as search criteria and Reverse Telematch uses telephone numbers as the search criteria to provide the names under which telephones are listed.

Intensive locating (post-CATI tracing). All cases that were not located during the CATI locating process were submitted to TOPS for intensive locating. TOPS implemented a two-tiered intensive tracing plan. The first tier involved identifying sample members with Social Security numbers and processing that information through a series of electronic databases. The specific tracing activities are listed below, and were restricted to the collection of locating/directory information.

- *Query of Equifax database.* Equifax is a credit bureau that maintains credit files on a large number of individuals.
- *Query of Internet databases.* Contractor staff had direct electronic access to various databases, which included names, Social Security numbers, and current and former addresses and telephone numbers of individuals.
- *Query of the Select Phone Book CD ROM data.* This database contains every published telephone number in the United States, with associated names and addresses. It can be sorted within city by address, to obtain telephone numbers and names of neighbors.

If the searches generated a new telephone number, that case was sent back to RTI's Telephone Survey Department (TSD) for telephone interviewing. If a new address was generated, but no telephone number, tracers called Directory Assistance or accessed other databases to obtain telephone numbers for the TSD. This first level of effort minimized the time that cases were out of production.

All remaining cases (those lacking new information from the SSN search) underwent a more intensive level of tracing in the second-tier approach. This approach involved the following procedures: (1) checking Directory Assistance for telephone listings at various addresses; (2) using electronic reverse-match databases to obtain the names and telephone numbers of neighbors and then calling the neighbors; (3) calling persons with the same unusual surname in small towns or rural areas to see if they were related to or knew the sample member; (4) contacting the current or last-known residential sources such as neighbors, landlords, current residents, tax assessors, realtors, and other business establishments related to previous addresses associated with the sample member; (5) calling colleges, military establishments, and correctional facilities to follow up on leads generated from other sources; and (6) checking various tracing Web sites. Tracers checked new leads produced by these tracing steps to confirm the address and telephone numbers for the sample members. When the information was confirmed, the case was returned to CATI for completion. If the information could not be confirmed (e.g., there were no working telephone numbers or numbers for relevant neighborhood sources were unpublished), the case was sent to the field.

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[29] FastData is a series of database searches used to locate sample members after pre-CATI batch database searches have been done but before sending cases for intensive interactive tracing.

[30] The Tracing Operations Unit (TOPS) is a highly specialized unit within RTI that was created in response to the recurring needs of certain research methodologies to locate large numbers of sample members. The sole focus of TOPS is tracing sample members so that they can be located for research studies; the unit does not involve any data collections.

Field locating. The main purpose of the intensive field locating/interviewing effort was to increase the response rate. However, since the costs of conducting these operations were high, field efforts were implemented only when less costly efforts were exhausted. Sample members were identified as needing field locating/interviewing if they were not located using CATI-locating and centralized intensive tracing.

Geographic clusters of sample members were designated, and 33 of these clusters were staffed with field interviewers who were trained to locate sample members and interview them using a laptop computer Field cases falling outside the geographic clusters were assigned to field locators (trained as interviewers on other RTI studies) who located sample members in their local areas and encouraged them to call in to RTI's TSD to be interviewed.

2.3.3 Telephone Interviewing

CATI locating and interviewing began on May 22, 2000, and continued through February 28, 2001. CATI procedures included attempts to locate, gain cooperation from, and interview study sample members by telephone.

Before the CATI sequence began, notification letters on U.S. Department of Education stationery and with attachments were mailed to students. These letters notified the sample members of the upcoming survey, pointed out the importance of the study, disclosed average time burden, and urged participation.

Associated with the interviewing was the necessity (due to incomplete or incorrect telephone numbers), in many cases, to locate the respondent(s). Much of the locating challenge was associated with the fact that many NPSAS:2000 sample members (particularly those who had just received their degrees) were at a stage in their lives in which they were highly mobile. To facilitate the tracing component, each CATI record contained roster lines for up to 15 telephone numbers; each such roster line was associated with a history of the dates and results of all calls made to that number and a number-specific comment field. Up to five roster lines were preloaded with contact information. New roster lines were added during CATI tracing operations as a result of locating sample members via intensive tracing efforts. Locating calls were initiated according to a calling plan using an automatic call scheduler embedded within the CATI software. This system allowed calls to be scheduled on the basis of established case priority, time of day, and history of success of prior calls at different times and on different days.

Once located, an attempt was made to conduct the full interview with the sample member. However, some cases required special treatment. To deal with those who initially refused to participate (including locator sources who acted as "gatekeepers," preventing access to the sample member), certain interviewers were trained in refusal conversion techniques. Sample members and their locator sources who spoke only Spanish, primarily located in Puerto Rico, were assigned to bilingual CATI interviewers.

Finally, in an effort to increase study response rates, a modest incentive was used with particular types of nonrespondents: (1) cases where the sample member initially refused the interview; (2) sample members for whom intensive tracing yielded a good mailing address, but no telephone number; and (3) cases identified as "hard to reach" (i.e., those with 20 or more call attempts, where contact had been established with the sample member and no "hard" appointment was pending). The incentive consisted of a letter from the project director on RTI letterhead, tailored to the specific type of nonrespondent (i.e., refusal or hard to reach/no telephone number). A $5 bill was included with the letter. Respondents were promised a check for $15 if they called an 800 number to complete the interview. The incentive letters were mailed on a flow basis as respondents met one of the three criteria described above. All cases sent to field interviewers or field locators were automatically made eligible to receive the incentive once the case was sent to the field. Interviews were obtained from about half of the sample members who were offered the incentive with almost 60 percent of those initially refusing being converted by the incentive offer.

2.3.4 Field Interviewing

Field interviewing activities began after training was conducted and field cases and bulk supplies were shipped to the field interviewers. CAPI procedures included attempts to locate, gain cooperation from, and interview study sample members either by telephone or in person.

All students who were finalized in CATI and by TOPS as "unlocatable" were eligible for assignment to the field for CAPI interviewing or field locating. Sample members who had not completed the NPSAS:2000 interview at the time field interviewing began and who resided in an identified geographic cluster in the vicinity of a field interviewer were immediately assigned to the field. The field interviewer then attempted to locate the student and complete the interview using CAPI. If the case was not in an identified cluster, it was assigned to a field locator. The field locator then attempted to locate the student and convince the student to call an 800 telephone number to complete the interview in CATI.

Field interviewers documented every telephone call or field contact. They were provided with a checklist that included example questions to help with tracing operations and that demonstrated the correct order in which tracing activities should be performed. The checklist was completed for each case to help identify the sources that were most useful in locating the students.

Primary tracing sources included parents, current or former neighbors or roommates, the NPSAS school, and city and county offices. Secondary tracing sources included Directory Assistance, the Chamber of Commerce, public libraries, the U.S. Postal Service, and the

Department of Motor Vehicles. Other miscellaneous sources for field interviewers, useful in some cases, included small town police or sheriff's departments, fire departments or emergency rescue squads, local newspapers, public housing authorities, mobile home park managers, motel staff, probation officers, and permit-issuing departments at the city level (new construction). A contact script guided interviewers in soliciting information from various sources.

When field interviewers successfully located sample members, they introduced themselves and explained the purpose of the study, referring to the advance letter mailed previously. They then attempted to complete the interview using the same instrument used in the CATI interview. The field staff were supported by a computerized control system that tracked field assignments and captured pending and final result codes. Daily reports, posted to the IMS, tracked the progress of the field effort.

2.3.5 Training CADE Data Collectors

The training for RTI CADE staff was held in two sessions to allow for efficient use of the field staff immediately following training. Prior to these sessions, six Field Supervisors hired for the CADE collection were trained in February 2000. The initial training for 23 CADE Field Data Collectors was conducted during April 2000. The second session was originally planned for June; however, this session was postponed to late July 2000 to coincide with the projections of list receipt from institutions, sample selection, and flow of cases into CADE. Staff scheduled to attend the June session were notified of the delay and there were no attrition problems related to the postponement. Five of the six Field Supervisors attended and participated in the training session and 13 Field Data Collectors successfully completed the session. To reduce travel costs for the relatively small number of trainees, the training sessions were held in the Research Triangle Park area.

The Field Supervisor training included a 2-day session on the background of NPSAS:2000 (including objectives, time frame, and the financial aid process), supervisory and administrative responsibilities, procedures for recruiting field data collectors, and use of the Case Management System, the assignment and transfer (WebATS) system, and the e-mail system. The Field Data Collector training included a half-day of training on the computer for a subset of the trainees (who needed an introduction to the computer) prior to the project training. Training consisted of an overview of the NPSAS:2000 objectives and time frame, explanation of how the financial aid process works on campuses, review of the architecture and nature of the CADE software, review of and practice with each section of the CADE instrument, procedures for contacting and dealing with the Institutional Coordinator and other staff at the institutions, instruction in and practice with locating records (including, but not restricted to use of the "location of records" lists provided by the Institutional Coordinators and review of ISIRs, procedures for contacting Field Supervisors, electronic transmission of completed cases, and administrative procedures.

During this training, considerable use was made of location and abstraction of records using mock student folders developed, with the assistance of NASFAA staff, to represent diversity in record keeping at different types of postsecondary institutions. Laptop computers were provided to all trainees for their use during training and subsequent field work.

Additionally, as a training aid, each trainee was issued a *Field Data Collector Manual*[31] and a *CADE Users' Guide.*[32] The tables of contents for both of these manuals as well as a copy of the Field Data Collector training agenda are included in appendix D.

Training of institutional staff in use of the Web-CADE application relied heavily on self-training, since the major objectives of that training were to become familiar with the CADE program and to learn how to access the program through the World Wide Web. A secure user ID and password were required to access the system. Help screens were embedded within the program and a "hotline" number and e-mail address were established through which users could obtain answers to specific or general questions from RTI central office staff who developed the software. Additionally, institutional staff were provided with a copy of the *CADE Users' Guide.*

2.3.6 Training of CATI/CAPI Interviewers and Tracing Specialists

The mixed-mode design of the NPSAS:2000 student data collection required the development of three separate training programs: CATI interviewing, field interviewing, and tracing. Each training program consisted of separate protocols for data collectors and for supervisors. For each, training topics covered administrative procedures, including confidentiality requirements and quality control techniques; student locating; interactions with students, parents, and other contacts; the nature of the data to be collected; and the organization and operation of the CATI, CAPI, and tracing operations systems used for data collection. The goals for these training programs were to

- increase the accuracy, quality, and timeliness of the data collected;
- standardize the quality of data collection techniques and procedures; and
- provide explicit, nonjudgmental procedures for telephone interviewers, telephone monitors, field staff, tracing specialists, and supervisors to follow.

Training telephone interviewers. Initial training for telephone interviewers, monitors, and supervisors began in late April 2000 immediately before student data collection started. Most of the supervisors and monitors used on the project were trained in a separate session, prior to interviewer training, so that they could assist during subsequent training sessions. Because cases flowed into CATI over time from the school data collection effort (rather than being loaded all at once at the outset of data collection), it was necessary to schedule the required training sessions over time to mirror the CATI workload. In all, 23 training sessions were held for CATI interviewers, monitors, and supervisors between April and December 2000. In total, 372 telephone interviewers were trained over this 9-month period. Table 2-6 lists the training sessions offered and the number of interviewers, supervisors, and monitors completing each training program.

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[31] RTI *Field Data Collector Manual: NPSAS:2000 Main Study*. Research Triangle Park, NC, March 2000.

[32] RTI *CADE Users' Guide: NPSAS:2000 Main Study*. Research Triangle Park, NC, April 2000.

Table 2-6.—CATI training activities and number of interviewers trained

Training activity	Number of sessions	Number of people trained
CATI supervisor/team leader training	1	37
CATI monitor training	1	20
General telephone interviewer training	16	297
Telephone interviewer training and refusal avoidance	20	372
Telephone interviewer refusal conversion training	8	86
Tracing specialist training	9	106

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999—2000 (NPSAS:2000).

Newly hired interviewers with no prior telephone interviewing experience were also provided with 8 hours of general or introductory CATI training before they were allowed to attend the project specific training. In these sessions, new interviewers were instructed on general interviewing techniques and best practices, the screen layout and coding conventions used on all CATI projects conducted at RTI, and the routine administrative procedures and requirements for working in RTI's Telephone Survey Department. New interviewers who did not successfully complete the 8 hours of general training were not allowed to proceed to the project-specific NPSAS:2000 training.

Project-specific training for CATI-experienced telephone interviewers and new hires who successfully completed general interviewer training consisted of 20 hours of classroom and practical, hands-on training. Topics covered included the nature and purpose of NPSAS:2000 and the B&B:2000/2001 follow-up; the procedures and protocols to be used for tracing, contacting, and interviewing sample members; and an extensive review of the NPSAS:2000 instrument. During the training, all questions in the interview were reviewed, and interviewers received both written and hands-on practice with the screens and subroutines for conducting online coding, and time for both group and individual practice with the instrument itself. Prescripted or "mock" interviews were designed to ensure that interviewers received hands-on practice with the most common paths through the questionnaire as well as practice administering some of the more difficult items in the questionnaire. Small group training, using audiotaped scenarios, was also provided to enhance refusal avoidance skills. At the end of the project-specific training, all interviewers were required to complete a certification process to ensure their readiness to conduct efficient and reliable interviews for the project. The certification process involved the successful administration of the NPSAS interview in a paired "mock" situation with a fellow trainee (one playing the interviewer, the other the sample member). Trainers monitored these sessions, noting any difficulties a trainee might have had with questionnaire administration; use of online coding programs; keying accuracy; and voice tone, speed, and quality. Those who did not successfully complete the training and pass the certification process were not allowed to work on the study.

At the outset of the training, each interviewer received a detailed NPSAS:2000 *Telephone Interviewer Manual*[33] that served as both an instruction guide for the training's lectures, discussions, and practical exercises, and as a reference guide for use after completion of training. The manual's table of contents and a sample of the training agenda for telephone interviewer training are included in appendix D. The interviewer manual, supplemented with additional materials more directly related to supervisory activities, was also provided to telephone supervisors and monitors.[34] The supplementary materials included data collection schedules and staff contact information, procedures for supervising interviewers during data collection, tracing review and other quality control activities, problem resolution, refusal avoidance and conversion techniques, and administrative and record-keeping activities.

Staff involved with interviewer monitoring received 2 hours of additional instruction on the protocols and procedures for conducting interviewer performance monitoring and quality assurance monitoring. The training included a review of the interviewer performance monitoring form and hands-on practice with the online program developed for quality assurance monitoring. Each monitor received a separate manual documenting the procedures to be followed.[35]

Six weeks after the start of student interviewing, project staff began conducting a series of refusal conversion trainings for a subset of the highest-performing telephone interviewers. CATI supervisors and monitors evaluated the effectiveness of telephone interviewers in dealing with respondent objections and overcoming barriers to participation. The most effective interviewers received additional and specialized instruction in specific refusal conversion techniques, including obtaining cooperation from sample members, addressing concerns raised by parents and other sample gatekeepers, validating the importance of the study, and encouraging participation among sample members who were nonrespondents in the previous data collection. During the course of data collection, 86 interviewers completed refusal conversion training.

Training field interviewers. To ensure standardization and reliability in the field data collection effort, all field interviewing and supervisory staff were required to complete a 32-hour comprehensive training program designed to maximize both data quality and interview response rates. This training program included classroom lectures, hands-on practice, and other practical exercises. The content of the training sessions focused on an overview of the nature and purpose of NPSAS:2000 and the B&B:2000/2001 follow-up, procedures for tracing and contacting sample members in the field, an extensive question-by-question review of the NPSAS:2000 instrument, practice with the interview screens and online coding programs, and time for both group and individual practice.

As with the telephone interviewer training, the field interviewer training program provided hands-on training with the CAPI interview program. Additionally, the training program covered tracing techniques, contacting protocols, and case management, including the use of electronic mail and data transmissions systems, troubleshooting guidelines for the laptop computer, and field-specific reporting and administrative requirements.

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[33] RTI *Telephone Interviewer Manual for NPSAS:2000.* Research Triangle Park, NC: April 2000.

[34] RTI *Telephone Supervisor's Manual for NPSAS:2000.* Research Triangle Park, NC: April 2000.

[35] RTI *Monitor Manual for NPSAS:2000.* Research Triangle Park, NC: April 2000.

Each interviewer received a copy of the NPSAS:2000 *Field Interviewer Manual*[36] at the start of the training. This manual, which served as both an instructional resource and a reference book for the field work, introduced and reviewed many topics important to the study. The classroom instruction, discussion, and practical exercises focused on general interviewing, field tracing, and student contacting. The manual and field interviewer training also provided instruction for reviewing the case history documentation generated by in-house tracing activities to avoid repeating steps taken during earlier tracing efforts (e.g., telephone interviewer contacts and centralized tracing efforts). The interviewer manual, supplemented with additional materials more directly related to supervisory activities, was provided to field supervisors.[37] The supplementary materials included data collection schedules and staff contact information, procedures for supervising interviewers during data collection, tracing review and other quality control activities, problem resolution, interview verification procedures, and administrative and record-keeping activities.

Initial training for field supervisors took place in August 2000, several weeks before the first field interviewer training session. These supervisors then assisted with the initial training for field interviewers that took place in September, just before the start of field data collection. Two more training sessions were held for additional field interviewers in November and December. Overall, 6 field supervisors and 74 interviewers completed the field interviewer training for NPSAS:2000.

Finally, 65 field locators, who were used to assist with tracing of unclustered nonrespondent cases, were trained using a home-study packet, rather than a centralized training program. As case assignments were made, each field locator was sent home-study materials consisting of a study overview, a field locator manual that explained the nature of the assignment and the steps to be followed in locating hard-to-find sample members, instructions for making contact with sample members and other potential contacts, and a set of example tracing materials. Field locator assignments were made initially in October 2000 and continued through January 2001.

Training tracing specialists. Staff working in RTI's TOPS on the centralized locating and tracing activities for NPSAS:2000 also received project-specific instruction, although not as extensive as the programs developed for telephone and field interviewers. Each tracing specialist received two hours of instruction, including an overview of the nature and purpose of NPSAS:2000 and the B&B:2000/2001 follow-up; the study schedule; protocols for contacting sample members, gatekeepers, and other contacts; the tracing steps and techniques to be used for locating NPSAS:2000 sample members; and the tracing-specific reporting and administrative requirements for the study.

Newly hired tracing specialists also received 8 hours of general tracing instruction. This training focused on general tracing techniques; use of the computer search resources in TOPS; documentation of locating steps in the TOPS case management system; techniques for obtaining locating information for sample members from parents, gatekeepers, and other contacts; and the general and routine procedures for working in the TOPS unit. Tracers who did not successfully complete the general tracing training were not permitted to attend the project-specific training.

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[36] RTI *Field Interviewer Manual for NPSAS:2000.* Research Triangle Park, NC, May 2000.

[37] RTI *Field Supervisor Manual for NPSAS:2000.* RTP, NC, May 2000.

Eight training sessions were held between May and November 2000 for tracing staff. In total, 8 tracing supervisors and 83 tracing specialists were trained to work on NPSAS:2000.

2.3.7 Evaluation and Quality Control Design

Each major component of the NPSAS:2000 full-scale study was evaluated. Formative evaluations were designed to assess tasks at intermediate stages so that the effects of employing alternate methodologies could be analyzed, and modifications and revisions could be employed and assessed prior to task completion. Other evaluations assessed the ultimate outcomes of the survey. A summary of NPSAS:2000 evaluations that were planned and implemented is provided in table 2-7.

As indicated in table 2-7, the study design included a number of components for evaluation of data quality. Among these, a reliability reinterview was conducted with students about 8-12 weeks after the initial interview; this involved a random subsample of respondents to the initial interview. The reliability reinterview contained only a small subset of the initial interview items. Also critical to the operational evaluation and quality control were the regular quality circle meetings with field interviewers, telephone interviewers, interview monitors, and interviewer supervisors. These meetings provided an easily available forum for production staff and project management to address the important topic of work quality, discuss issues of concern, identify problems with the survey instruments, share ideas for improving the instruments, and suggest various approaches for improving operations and/or results. To implement suggested improvements arising from these meetings, the operational features of the CATI instrument were sometimes refined over the course of the data collection period. On completion of data collection, final quality circle meetings were held, serving as debriefing sessions for the full operational period.

2.4 The Integrated Management System

The NPSAS:2000 IMS was developed based on a framework initially developed (and refined) under previous NCES studies conducted by RTI. These include BPS:90/92, BPS:90/94, NPSAS:96, and BPS:96/98. As with these previous studies, the NPSAS:2000 IMS consisted of independent, but integrated, modules. Development of the IMS occurred throughout the study field test period, and was modified before the full-scale study based on field test results. To the extent possible, the NPSAS:2000 IMS was developed using commercial, off-the-shelf PC-based software systems.

Table 2-7.—Summary of NPSAS:2000 evaluations

Major area of evaluation	Evaluation approaches
Training	Debrief field abstractors.* Debrief CATI staff.*
Enrollment file acquisition	Analyze overall response rate, accuracy, costs, and time to produce lists.
Record abstraction	Evaluate electronic file matching/downloading approaches. Analyze data quality (missing data) under conditions of web-CADE, field-CADE, and data file production approaches. Debrief institutional coordinators.* Debrief field staff.*
Tracing activities	Debrief tracing staff and supervisors.* Analyze all levels of tracing results and costs.
Interview administration/data quality	Analyze silent monitoring quality control data. Analyze CATI operational parameters (e.g., numbers of calls per case, total interviewer hours per completed interview). Analyze interview response burden, overall and by section. Debrief interviewers, monitors, and supervisors.* Analyze response rates and patterns of interview nonresponse. Analyze impact of financial incentive on response rate. Analyze response temporal stability (reliability) through reinterviews of selected items. Analyze effectiveness of various strategies for handling answering machines.

*Informal debriefings of staff involved in different data collection tasks were conducted throughout the study. Information gathered through these debriefings was used to enhance understanding of the outcomes of more formal evaluations and is therefore not described separately in this report.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The major enhancement to the NPSAS:2000 IMS was the development of a Web-CADE module for institutions to provide student data via the Internet.. The system replaced the diskette-based version of CADE used during NPSAS:96. The Web-CADE system included encrypted data transmission and a login/logout feature to maintain data security. More information about Web-CADE is provided below.

The modular design of the IMS allowed for efficient upgrading or replacement of components, or modules, as necessary. This occurred during the field test period, as RTI's migration from SQL Server 6.5 to SQL Server 7.0 took place during the summer of 1999.

Below are listed the major modules of the NPSAS:2000 IMS. Relevant details regarding each module are provided.

Receipt Control System (RCS)

- Back-end database is Microsoft SQL Server. SQL Server version 6.5 was used for the field test development. The RCS back-end database was upgraded to SQL Server version 7.0 near the end of the field test period and before the full-scale study.
- Front-end interface was programmed in Microsoft Visual Basic 5.0 and Microsoft Access 97.
- RCS reports were developed using Crystal Reports 6.0 and Microsoft Access 97.

Web CADE

- Back-end database was Microsoft SQL Server 6.5 (subsequently upgraded to version 7.0).
- Front-end interface was programmed in HTML.
- Middleware software, which allows the Web pages to communicate with the back-end database, was Allaire Cold Fusion version 4.0.
- Web-CADE edit checks were programmed using JavaScript.
- Reports were developed using Crystal Reports 6.0, Microsoft Access 97, and Cold Fusion 4.0.
- Web security was implemented using Secure Socket Layer (SSL) certification with 128-bit encryption. User IDs and passwords were assigned by RTI using Microsoft Windows NT 4.0 domain security.
- Users' browsers were required to support, and be enabled for, JavaScript.

Field CADE

- The field CADE system was run on Toshiba Satellite laptop computers configured with 32MB of RAM and Pentium processors.
- Back-end database was CASES version 4.3.
- Instrument was programmed in CASES 4.3.
- User exits were programmed using C++.
- Final CADE database was maintained in SAS version 6.12.
- CADE quality control reports and status reports were programmed in SAS 6.12.

CATI/CAPI

- Back-end database was CASES version 4.3.
- Main instrument was programmed in CASES 4.3.
- Abbreviated instrument (for use in refusal conversion and hardcopy format) was programmed in CASES 4.3.
- CATI user exits were programmed using C++.
- Final CATI database was maintained in SAS 6.12 (subsequently upgraded to SAS 8.1).
- CATI status and summary reports were programmed in SAS 6.12 (subsequently upgraded to SAS 8.1).
- The CATI system was ported to a CAPI version, for use in conducting in-person interviews with students. The same software systems were used for the CAPI system, with the exception of a case management component developed in SQL Server 7.0 and Visual Basic 5.0.

Data Library

- CD-ROM-based searchable database of Data Library entries was maintained in SQL Server 7.0 throughout the course of the study. The Data Library was initialized during the NPSAS:2000 field test.
- Web-based searchable database of Data Library entries was programmed in Cold Fusion 4.0 and Microsoft Access 97.
- Word processed documents were created using Microsoft Word.
- Spreadsheets were created in Microsoft Excel.
- Schedule files were maintained in Microsoft Project 98.

IMS Web site

- Infrastructure was programmed in HTML, with Cold Fusion 4.0 providing "action pages."

- SQL Server 7.0 served as the back-end database where applicable (maintaining the project staff contact list, Technical Review Panel membership, confidentiality report, etc.)

Central Processing System (CPS)

- Back-end database for CPS data received was SAS version 6.12 and version 8.1.

- The CPS was a mainframe-based system called the Title IV Wide Area Network (T4WAN). Communications with T4WAN were through EDConnect for Windows version 2.3.

- CPS input files were prepared using SAS 6.12 / 8.1. Input files were flat ASCII files, with the Federal Data Request (FDR)-file layout (as specified in the CPS Electronic Data Exchange Technical Reference manual).

- CPS data files were read using SAS 6.12 / 8.1. CPS data files were flat ASCII files (one record per student, plus header and trailer records) with FDR full ISIR layout (as specified in the CPS Electronic Data Exchange Technical Reference manual).

National Student Loan Data System (NSLDS) processing

- Input files for matching to the NSLDS were created as flat ASCII files, containing student name, SSN, and date of birth. Files contained one record per sample student.

- NSLDS data were received as ASCII files containing loan-level transactions (multiple records per student). NSLDS loan records reflected cumulative history of loan data (i.e., not just the NPSAS year).

- Pell Grant data files were also received from NSLDS as flat ASCII files containing Pell-award-level records. As with the above-mentioned loan data, each student's cumulative Pell history was obtained.

- All NSLDS input files were created and processed using SAS 6.12 / 8.1.

- Back-end database for all NSLDS data was SAS 8.1 format.

Admissions test file processing

- Student SAT data (scores and background variables) were obtained from ETS. ACT scores and background variables were obtained from ACT.
- Input files for submission to ETS and ACT were flat ASCII files, containing student name, SSN, and date of birth. Files contained one record per sample student.
- Admissions test files (received back from ETS and ACT) were flat ASCII files containing student-level records (one record per student). A separate file was received for each admissions test cohort year (multiple files received from each admissions test vendor).
- Input files for admissions test data were created and processed using SAS 6.12 / 8.1.
- Back-end database for admissions test data was SAS 6.12.

Automated processing

During full-scale data collection, a series of automated batch files were executed nightly via Windows NT scheduled processing. These automated processes included the following.

- Zero record update

  Each night a process would run to copy the CATI "Zero" record (i.e., the master case status file) to an SQL table within the RCS database. This information was used to synchronize files between the RTI call center and the data being collected by field data collectors. The two key synchronization fields were the current status (interview complete, pending, refusal, etc.), and incentive group assignment (used to trigger incentive mailouts to "unable to locate" and "refusal" cases).

- Institution comments

  This automated process updated the IMS Web site with searchable case-level comments from institution contacting staff. This provided the project team members with up-to-date information for use in communicating with institution staff.

- Master CADE upload

  Each night this process would move CADE data from the public web CADE database to the master CADE database inside the RTI firewall.

- Dataload

  This program contained many different subprocesses, with the overall purpose being to process transactions generated during the day by various project systems and activities, and post the transactions to the Receipt Control System, updating institution and student-level case status information. Transactions included results from enrollment list processing, sampling, CPS matching, CADE preload and data receipt processing, lead-letter mailout and return, and CATI/CAPI preloading and interviewing.

- RCS report generator

  Each night following the completion of the dataload process, the RCS report generator created HTML pages detailing both the institution- and student-level current status reports. It also produced miscellaneous project management reports including: Abstraction Method Report, Enrollment (list type) Report, Chief Administrator Participation Report, Enrollment List Acquisition Report, CADE Status Summary Report (overall and for the B&B cohort), and CATI/CAPI Summary Reports. The process automatically posted these reports to the IMS.

Chapter 3
Outcomes of Data Collection

This chapter presents the overall outcomes of the study procedures described in Chapter 2, including institutional participation rates and "yield" rates for each of the sources of student data accessed through these procedures. Factors related to these outcomes, including the results of planned evaluations, are examined further in subsequent chapters of this report.

3.1 Institutional Participation

Only 11 (1 percent) of the 1,083[1] institutions initially selected for the full-scale study were found to be ineligible for NPSAS:2000. The percentage ineligible was substantially less than in previous NPSAS rounds because institutions not participating in Title IV aid programs were excluded from eligibility in NPSAS:2000. Of the 11 NPSAS-ineligible sampled institutions, 7 failed to meet one or more of the NPSAS institutional eligibility criteria specified in Chapter 2, 2 closed between the time sampling frame information was collected and institutions were first contacted about participation in the study, and 2 were duplicated because of mergers with other sampled institutions. Institutional eligibility rates are shown in table 3-1, by institutional level of offering, control, and sector.[2] Institutional eligibility varied considerably with level of offering and control; it was lowest for less-than-2-year institutions and for the private for-profit institutions. These differences were expected, and are consistent with results from prior NPSAS rounds.

The 1,072 eligible sample institutions were asked to participate in NPSAS:2000 by (1) providing comprehensive lists of students for sample selection and (2) assisting in abstracting data from student records for sampled students. Hence, the potential for institutional nonresponse existed at these two points in the survey process. Table 3-1 shows that 999 (93.2 percent) of the 1,072 eligible sample institutions provided a student enrollment list or database that could be used for sample selection.[3] List provision rates (among eligible institutions) varied by type of institution considered.

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[1] During institutional contacting, it was discovered that part of one institution had recently split off and formed a separate institution. Both institutions were considered to be in the sample and therefore increased the sample size from 1,082 to 1,083.

[2] In this and subsequent tables, institutional classification errors on the sampling frame were corrected; consequently, counts within corrected classifications differ somewhat from those in Chapter 2 based on sampling strata.

[3] One institution provided only a baccalaureate list, which was not sufficient for sample selection.

Table 3-1.—Overall institutional eligibility and enrollment list participation rates

Type of institution[1]	Institutions sampled[2]	Eligible institutions[3]		Institutions providing lists		
		Number	Percent[4]	Number	Percent[5] unweighted	Percent[5] weighted
All institutions	1,083	1,072	99.0	999	93.2	91.3
Institutional level						
Less-than-2-year	123	117	95.1	103	88.0	87.5
2-year	247	244	98.8	232	95.1	95.9
4-year non-doctorate-granting	317	315	99.4	292	92.7	86.1
4-year doctorate-granting	396	396	100.0	372	93.9	96.2
Institutional control						
Public	580	576	99.3	545	94.6	94.4
Private not-for-profit	376	371	98.7	339	91.4	88.6
Private for-profit	127	125	98.4	115	92.0	91.0
Institutional sector						
Public less-than-2-year	34	32	94.1	28	87.5	79.1
Public 2-year	198	196	99.0	185	94.4	96.4
Public 4-year non-doctorate-granting	127	127	100.0	123	96.9	94.0
Public 4-year doctorate-granting	221	221	100.0	209	94.6	95.0
Private not-for-profit 2-year or less	35	32	91.4	30	93.8	97.6
Private not-for-profit 4-year non-doctorate-granting	173	171	98.8	153	89.5	81.6
Private not-for-profit 4-year doctorate granting	168	168	100.0	156	92.9	96.5
Private for-profit less-than-2-year	77	75	97.4	67	89.3	88.4
Private for-profit 2-year or more	50	50	100.0	48	96.0	94.8

[1] Institutional classifications were verified by the institutions to correct classification errors on the sampling frame.

[2] During institutional contacting, we discovered that part of one school had recently split off and formed a separate institution. Both institutions are included.

[3] Among the 11 sampled institutions considered ineligible, 2 had closed since the sampling frame reference period, 2 were duplicates with other selected institutions, and the remaining 7 failed to meet one or more of the criteria for institutional NPSAS eligibility.

[4] Percentages are based on the number of institutions sampled within the row under consideration.

[5] Percentages are based on the number of eligible institutions sampled within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Weighted participation rates were calculated based on the institutional probabilities of selection and are also shown in table 3-1.[4] The overall weighted participation rate of 91.3 percent and the weighted rates for most institution categorizations in table 3-1 are similar to the unweighted rates. However, NPSAS:2000 was designed to produce efficient estimates only at the student level. Institutions were selected with probabilities proportional to size; therefore, weighted institution-level estimates are subject to a high level of sampling variation.

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[4] The weighted response rates can be interpreted as the estimated percentages of institutions in the population that would have provided a usable student sampling list, if asked.

3.2 Matching to the Central Processing System

Table 3-2 summarizes the results of matching and downloading student data from the Department of Education's Central Processing System (CPS). The CPS contains data provided to ED by students and their families when they complete the Free Application for Federal Student Aid (FAFSA). The matching process required the use of the Federal Data Request (FDR) component of ED's EDConnect software. This component allowed RTI staff to dial into the CPS mainframe computer and to upload/download files on a regular basis. Submitting a record to the CPS required a valid Social Security number and a valid last name. A successful match required that the student have a valid application record within the CPS database.

The initial CPS matching process occurred after the student sample had been selected for an institution, but before institutional record (CADE) data collection activities had begun. This matching was against the CPS data for the 1999–2000 financial aid year. As shown in table 3-2, not all sample students were submitted to the CPS for matching. This was primarily because some institutions were unwilling or unable to provide valid Social Security numbers and last names. Following CADE, a small number of student cases that had not previously matched successfully to CPS were resubmitted, based on either a newly obtained Social Security number or the evidence in the institution records that the student had, in fact, applied for federal student aid for the 1999–2000 year. These matching processes included the matching of 1,141 cases to the CPS that were subsequently identified as ineligible for NPSAS, because the sample members did not meet all of the study eligibility criteria (e.g., not enrolled during the study year).

As can be seen from table 3-2, the overall matching rate for the 1999–2000 CPS data was 49 percent. Federal aid applications at public community colleges and technical institutions were expected to be proportionately less than in other sectors. Moreover, first-professional students tend to rely more on federal aid (primarily loans) whereas graduate students generally rely on institutional aid (teaching and research assistantships).

The NPSAS:2000 sample students were also matched to the 2000–2001 CPS files. It was expected that fewer sample students would successfully match to the 2000–2001 CPS files, primarily due to students who received degrees or certificates during the 1999–2000 NPSAS year and exited postsecondary education. Approximately 500 cases were excluded from matching to the 2000-2001 CPS files, because SSNs required for such matching were not available until after completion of these activities. Table 3-2 shows that, overall, 52.7 percent of sample students matched to either CPS 1999–2000 or CPS 2000–2001, and 25.3 percent matched to both data files.

The proportion of the sample that successfully matched to the CPS 2000–2001 (28.9 percent) was somewhat lower than the corresponding match rate to CPS 1996–97 obtained during the NPSAS:96 study (36.3 percent). This result is not surprising, because the NPSAS:96 sample included a large number of beginning postsecondary students, who were likely to still be enrolled in postsecondary education the following year, whereas the NPSAS:2000 sample included a proportionately larger number of baccalaureate recipients, who were more likely to be leaving postsecondary education the following year.

Table 3-2.—Matching sample students to CPS data for 1999–2000 and 2000–2001, by selected institutional and student classifications

Type of student[1]	Eligible students[2]	Matched to 1999–2000		Matched to 2000–2001[3]		Matched to both years		Matched to either year	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent
All students	68,925	33,831	49.1	19,942	28.9	17,436	25.3	36,337	52.7
Institution level									
Less-than-2-year	6,478	4,265	65.8	1,763	27.2	1,616	24.9	4,412	68.1
2-year	13,145	5,502	41.9	3,754	28.6	3,034	23.1	6,222	47.3
4-year non-doctorate-granting	18,245	9,895	54.2	5,735	31.4	5,176	28.4	10,454	57.3
4-year doctorate-granting	31,057	14,169	45.6	8,690	28.0	7,610	24.5	15,249	49.1
Institutional control									
Public	43,445	18,508	42.6	11,896	27.4	10,044	23.1	20,360	46.9
Private not-for-profit	18,700	10,287	55.0	5,922	31.7	5,399	28.9	10,810	57.8
Private for-profit	6,780	5,036	74.3	2,124	31.3	1,993	29.4	5,167	76.2
Institutional sector									
Public less-than-2-year	1,502	529	35.2	249	16.6	198	13.2	580	38.6
Public 2-year	10,593	3,583	33.8	2,724	25.7	2,088	19.7	4,219	39.8
Public 4-year non-doctorate-granting	9,840	4,798	48.8	2,980	30.3	2,628	26.7	5,150	52.3
Public 4-year doctorate-granting	21,510	9,598	44.6	5,943	27.6	5,130	23.8	10,411	48.4
Private not-for-profit 2-year or less	1,770	1,223	69.1	719	40.6	648	36.6	1,294	73.1
Private not-for-profit 4-year non-doctorate-granting	7,751	4,636	59.8	2,514	32.4	2,313	29.8	4,837	62.4
Private not-for-profit 4-year doctorate-granting	9,179	4,428	48.2	2,689	29.3	2,438	26.6	4,679	51.0
Private for-profit less-than-2-year	4,364	3,298	75.6	1,302	29.8	1,217	27.9	3,383	77.5
Private for profit 2-year or more	2,416	1,738	71.9	822	34.0	776	32.1	1,784	73.8
Student level									
Total undergraduate	56,069	29,874	53.3	17,466	31.2	15,303	27.3	32,037	57.1
B&B	15,263	7,925	51.9	2,095	13.7	1,641	10.8	8,379	54.9
Other undergraduate	40,806	21,949	53.8	15,371	37.7	13,662	33.5	23,658	58.0
Graduate	11,538	3,001	26.0	1,827	15.8	1,518	13.2	3,310	28.7
First-professional	1,318	956	72.5	649	49.2	615	46.7	990	75.1

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] Includes all sampled students for whom *apparently* legitimate Social Security numbers, obtained either before or during CADE, were submitted to CPS for matching for 1999–2000. This figure includes approximately 500 cases who were rematched to CPS 1999–2000 because a Social Security number was obtained while ISIR data were being collected in CADE. This figure excludes approximately 500 cases that were sent for

[3] Only the original set of cases (having a valid Social Security number prior to CADE) was sent to CPS 2000–2001. This figure excludes approximately 500 cases that were sent for rematching to CPS 1999–2000 because a Social Security number was obtained while ISIR data were being collected in CADE.

NOTE: All percentages are unweighted and based on the number of eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.3 Abstracting Students' Institutional Records

As previously indicated, 999 of the 1,072 eligible sample institutions provided a student enrollment list or database that could be used for sample selection. These institutions were therefore eligible to participate in the student record abstraction phase of the study referred to as CADE (computer-assisted data entry). Table 3-3 shows the weighted and unweighted CADE participation rates by several domains of interest. NPSAS:2000 included four CADE abstraction methods—Web, data file, field interviewer, and abbreviated CADE—each of which is described below.

At the institution level, an institution was classified as a participating institution if sufficient data were obtained for at least one sample student to be classified as a CADE record respondent. Only one institution provided CADE data for a single sample member.

3.3.1 Web-CADE

Both NPSAS:93 and NPSAS:96 included a computer-based option for NPSAS institutions to provide student record data. This has traditionally been known as "self-CADE." For the first time, NPSAS:2000 employed a Web-based methodology for obtaining data from student records. Figure 3-1 presents the home page of the NPSAS CADE Web site. As can be seen, visitors to the Web site were provided with links to frequently asked questions, information about the study, and a mechanism to log into the CADE system. Each Institutional Coordinator was mailed a unique CADE identifier, and then was given a password by phone. The login page, and all further-nested pages within the CADE application, were protected via a Secure Socket Layer (SSL) encryption safeguard. Further security was provided by an automatic "time out" feature, through which the user was automatically logged out of the CADE application if the system was idle for 20 minutes or longer. The system did not use any persistent "cookies," thus adhering to ED's privacy policy. Selected Central Processing System (CPS) data were preloaded into the web-CADE application before data collection began to reduce data entry burden for institution staff.

In total, 707 of the 999 CADE institutions agreed to provide student data via Web-CADE. Ultimately, 694 (74 percent) of the 937 institutions that provided CADE data did so via the NPSAS CADE Web site. This proportion was somewhat higher than anticipated, since in NPSAS:96, 57 percent of institutions completed "self-CADE." However, given the availability of Web browsers and access to the Internet within the postsecondary education environment, it is assumed that the overall familiarity with the Web as a communication medium led to this increase.

Table 3-3.—Institution-level rates for obtaining institutional record data (CADE), by institutional sector and method of data abstraction

Type of institution[1]	Number of institutions providing lists	Institutions providing CADE[2]		
		Number	Unweighted percent[3]	Weighted percent[3]
All institutions	999	937	93.8	95.0
Institution level				
Less-than-2-year	103	89	86.4	91.1
2-year	232	222	95.7	98.6
4-year non-doctorate-granting	292	274	93.8	94.6
4-year doctorate-granting	372	352	94.6	94.1
Institutional control				
Public	545	514	94.3	95.8
Private not-for-profit	339	317	93.5	93.6
Private for-profit	115	106	92.2	95.6
Institutional sector				
Public less-than-2-year	28	25	89.3	88.2
Public 2-year	185	176	95.1	97.3
Public 4-year non-doctorate-granting	123	117	95.1	95.4
Public 4-year doctorate-granting	209	196	93.8	93.8
Private not-for-profit 2-year or less	30	27	90.0	93.8
Private not-for-profit 4-year non-doctorate-granting	153	141	92.2	93.3
Private not-for-profit 4-year doctorate-granting	156	149	95.5	94.0
Private for-profit less-than-2-year	67	58	86.6	92.4
Private for profit 2-year or more	48	48	100.0	100.0
Abstraction method				
Web	707	694	98.2	97.5
Data file	71	29	40.8	33.0
Field interviewer	221	214	96.8	98.9

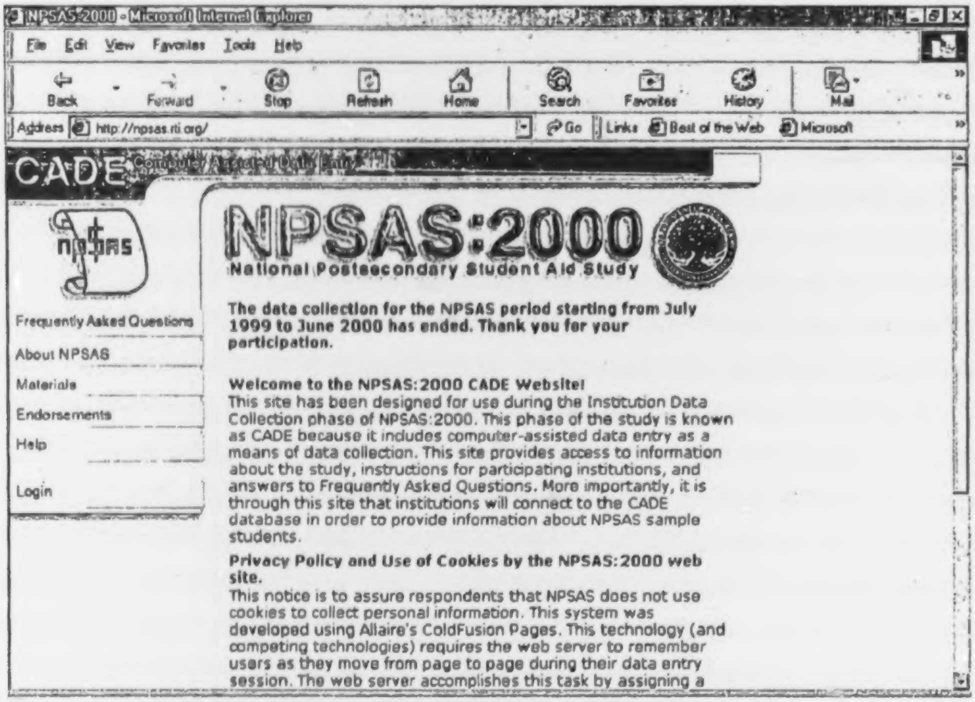
[1] Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

[2] Provided institutional record data for at least one sampled student.

[3] Percentages are based on the number of eligible institutions that provided a list for sampling.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure 3-1.—NPSAS CADE home page



NPSAS:2000 - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Forward Stop Refresh Home Search Favorites History Mail
Address http://npsas.rti.org/
Go Links Best of the Web Microsoft
CADE Computer Assisted Data Entry
npsas
NPSAS:2000
National Postsecondary Student Aid Study
Frequently Asked Questions
About NPSAS
Materials
Endorsements
Help
Login

The data collection for the NPSAS period starting from July 1999 to June 2000 has ended. Thank you for your participation.

Welcome to the NPSAS:2000 CADE Website!
This site has been designed for use during the Institution Data Collection phase of NPSAS:2000. This phase of the study is known as CADE because it includes computer-assisted data entry as a means of data collection. This site provides access to information about the study, instructions for participating institutions, and answers to Frequently Asked Questions. More importantly, it is through this site that institutions will connect to the CADE database in order to provide information about NPSAS sample students.

Privacy Policy and Use of Cookies by the NPSAS:2000 web site.
This notice is to assure respondents that NPSAS does not use cookies to collect personal information. This system was developed using Allaire's ColdFusion Pages. This technology (and competing technologies) requires the web server to remember users as they move from page to page during their data entry session. The web server accomplishes this task by assigning a

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.3.2 Datafile-CADE

As an alternative to keying data into the Web-CADE application, institutions were given detailed specifications for developing a set of data files containing student record data. Twenty-nine institutions, predominantly 4-year institutions, opted for this method of CADE abstraction. The specifications were customized for each institution so that they would have their own coding schemes for reporting various types of institution and state aid (the names of which were obtained from the Institutional Coordinator during the institution contacting phase of the study). Eight data files, including student-level, term-level, and aid award-level files, were required from each datafile-CADE institution in order to accurately match the identical data structure of the database underlying the Web-CADE application. Upon completion of the datafile-CADE file preparation, institutions submitted their data files back to RTI via the Web-CADE application. Upon submission, an automated quality control system processed the files and instantly reported back to the institutions any anomalies in the data (e.g., incorrect student ID variables, lack of term-level data for sample students, incorrect file names, etc.).

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3.3.3 Field-CADE

Consistent with procedures implemented in both NPSAS:93 and NPSAS:96, institutions were given the option of having an RTI-employed field data collector visit the institution and provide student record data-entry services at no expense to the institution. This CADE abstraction method is referred to as field-CADE. In total, 214 institutions opted for field-CADE. In most instances, field data collectors were able to complete the data collection activities in 1 week or less, although certain institutions with a relatively high number of sample students required as much as 2 weeks of field data collector activity to complete the collection.

Field data collectors used a laptop-based CADE system for entering data abstracted from student records. The system included real-time edit features to help detect out-of-range or inconsistent entries. Data previously obtained from the Central Processing System were preloaded into the system before data collection began, to reduce the data collectors' level of effort.

3.3.4 Abbreviated CADE

A fourth method of CADE abstraction was used for the first time in NPSAS:2000. This procedure, known as "abbreviated CADE," was intended as a last-ditch effort to obtain participation by sample institutions. Essentially, institutions that had not provided an enrollment list by late fall of 2000 were given the option of being excluded from the separate, complete CADE process. Instead, they were allowed to provide an enhanced enrollment list containing not only the data necessary for sampling, but also selected student attributes and locating data.[5] This set of 17 variables was considered sufficient for use in initializing the telephone interviewing system for the sample students, thus providing an opportunity to interview the students. These data were considered insufficient for defining the student-level case as a CADE respondent. Although not shown in table 3-3, 40 institutions chose to participate in this manner; these instructions are included in the "data file" count.

Rates for obtaining CADE data for the NPSAS:2000 sample students are shown in table 3-4. Again, both weighted and unweighted results are shown. The CADE data collection phase of the study was restricted to those students enrolled in the institutions providing an enrollment list from which a student sample could be selected. About 5,800 of the 70,200 sampled were subsequently determined not to meet the study eligibility requirements. Hence, the eligible CADE student sample consisted of about 64,500 students.

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[5] The 17 variables requested on the enrollment list for purposes of classifying an institution as participating in the study included student SSN, first name, last name, middle initial, student level, local phone and address variables, permanent phone and address variables, IPEDS ID of school attended, bachelor's degree recipient status, total institution grant aid, total state grant aid, and student major/field of study.

Table 3-4.—Student-level rates for obtaining institutional record data (CADE), by selected institutional and student classifications

Type of student[1]	Number of eligible students[2]	CADE completion		
		Number[3]	Unweighted percent[4]	Weighted percent[4]
All students	64,471	59,290	92	97
Institution level				
Less-than-2-year	5,810	4,640	80	86
2-year	11,548	10,970	95	95
4-year non-doctorate-granting	17,383	16,280	94	92
4-year doctorate-granting	29,730	27,400	92	94
Institutional control				
Public	39,984	37,200	93	93
Private not-for-profit	17,995	16,440	91	94
Private for-profit	6,492	5,650	87	94
Institutional sector				
Public less-than-2-year	1,169	910	78	82
Public 2-year	9,167	8,690	95	94
Public 4-year non-doctorate-granting	9,132	8,680	95	91
Public 4-year doctorate-granting	20,516	18,920	92	93
Private not-for-profit 2-year or less	1,659	1,480	89	97
Private not-for-profit 4-year non-doctorate-granting	7,481	6,840	91	92
Private not-for-profit 4-year doctorate-granting	8,855	8,130	92	95
Private for-profit less-than-2-year	4,096	3,320	81	87
Private for profit 2-year or more	2,396	2,330	97	98
Student level				
Undergraduate	52,033	48,010	92	94
Graduate	11,155	10,150	91	92
First-professional	1,283	1,130	88	91
Abstraction method[5]				
Web	42,421	41,130	97	99
Data file[5]	3,592	2,940	82	86
Field interviewer	16,016	15,210	95	96

[1] Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

[2] Includes all 70,232 sampled students minus the 5,761 found to be NPSAS-ineligible at any stage of data collection.

[3] A student was classified as a CADE record completion if key demographic, enrollment, and financial aid data were provided.

[4] Percentages are based on eligible students within the row under consideration.

[5] Excludes 2,442 students with abbreviated CADE information.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

A student record was considered to represent a CADE record respondent if it met the following criteria:

- the CADE financial aid gate question was answered (Yes or No, including derived answer from abbreviated CADE cases), AND
- some amount of CADE enrollment data was provided (as indicated by at least one of the 12 monthly enrollment indicators being nonzero), AND
- the CADE student characteristics section had at least one valid response for the set of items (date of birth, marital status, race, sex). If the case was a CPS match, it was considered to have successfully met this criterion.

Overall, the unweighted CADE student record response rate (the percentage of study-eligible cases for whom a sufficiently complete CADE record was obtained) was 92 percent. The rate was lowest among students from public less-than-2-year institutions (78 percent) and highest among students from private for-profit 2-year-or-more institutions (97 percent). As was previously mentioned, institutions classified as abstracted through abbreviated CADE did not actually complete the record abstraction process. Rather, these institutions provided a more thorough set of data as part of the enrollment list. However, this set of 17 variables was not considered sufficient for a student to be considered a CADE record respondent.

3.4 Matching to NSLDS for Loan and Grant Data

Results of the National Student Loan Data System (NSLDS) attempted loan matching are shown in table 3-5. Because NSLDS files are historical, information about receipt of such loans was available not only for the NPSAS year but also for prior years of postsecondary education (where applicable); therefore the table shows match rates for both the NPSAS year and historically. In total, 21,410 study respondents (34.9 percent of those submitted) were matched for the NPSAS year. This is consistent with the NPSAS:96 result of 34.2 percent. Over all years, 34,089 study respondents (55.6 percent) were matched, including both undergraduate and graduate students.

Table 3-5.—Results of NSLDS loan matching, by selected institutional and student classifications

Type of student[1]	Study respondents[2]	Matched to loan data[3]			
		Loan during NPSAS year		Loan historically[4]	
		Number	Percent	Number	Percent
All students	61,330	21,410	35	34,090	56
Institution level					
Less-than-2-year	5,080	1,840	36	2,860	56
2-year	11,150	2,320	21	4,460	40
4-year non-doctorate-granting	16,760	6,700	40	10,170	61
4-year doctorate-granting	28,340	10,550	37	16,590	59
Institutional control					
Public	38,570	11,140	29	19,300	50
Private not-for-profit	16,910	7,330	43	10,630	63
Private for-profit	5,850	2,940	50	4,160	71
Institutional sector					
Public less-than-2-year	1,050	90	8	280	27
Public 2-year	8,910	1,030	12	2,810	32
Public 4-year non-doctorate-granting	8,940	3,040	34	5,010	56
Public 4-year doctorate-granting	19,680	6,990	36	11,200	57
Private not-for-profit 2-year or less	1,470	630	43	860	58
Private not-for-profit 4-year non-doctorate-granting	7,130	3,260	46	4,640	65
Private not-for-profit 4-year doctorate-granting	8,320	3,440	41	5,130	62
Private for-profit less-than-2-year	3,590	1,600	45	2,360	66
Private for profit 2-year or more	2,260	1,340	59	1,800	80
Student level					
Undergraduate	49,620	18,140	37	27,360	55
Graduate	10,510	2,430	23	5,760	55
First-professional	1,200	840	70	980	81

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] Includes study respondents for whom an *apparently* legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

[3] The loan transaction matches for any year do not necessarily reflect a loan during the year. They may represent a consolidation or cancellation transaction.

[4] Over all years of postsecondary education reflected in the NSLDS files.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the total number of study respondents within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

For NSLDS matches for the NPSAS year and within the student classifications considered, the relative numbers of matches followed a pattern quite similar to that seen for the CPS matching. The table shows low match rates for graduate students and for those in public institutions with program offerings of 2 years or less, but high match rates for first professional students and those in private for-profit institutions. This was not surprising given the expectation that federal aid applications at public community colleges and technical institutions would be less than for other types of institutions. In addition, graduate students generally depend on institutional aid such as assistantships, while first-professional students tend to depend primarily on federal loans.

Results of attempted matches to the NSLDS Pell grant data are shown in table 3-6. Matches were obtained for 13,500 study respondents (22 percent of those submitted) for the NPSAS year.

Table 3-6.—Results of NSLDS Pell grant matching, by selected institutional and student classifications

Type of student[1]	Study respondents[2]	Matched to Pell data			
		Grants during NPSAS year		Grant historically[3]	
		Number	Percent	Number	Percent
All students	61,330	13,550	22	21,430	35
Institution level					
Less-than-2-year	5,080	2,670	52	3,180	63
2-year	11,150	2,750	25	4,090	37
4-year non-doctorate-granting	16,760	3,990	24	6,370	38
4-year doctorate-granting	28,340	4,150	15	7,790	28
Institutional control					
Public	38,570	7,320	19	12,510	32
Private not-for-profit	16,910	3,360	20	5,390	32
Private for-profit	5,850	3,870	66	3,520	60
Institutional sector					
Public less-than-2-year	1,050	280	27	390	37
Public 2-year	8,910	1,760	20	2,830	32
Public 4-year non-doctorate-granting	8,940	2,070	23	3,430	38
Public 4-year doctorate-granting	19,680	3,210	16	5,870	30
Private not-for-profit 2-year or less	1,470	690	47	880	60
Private not-for-profit 4-year non-doctorate-granting	7,130	1,740	24	2,670	38
Private not-for-profit 4-year doctorate granting	8,320	920	11	1,840	22
Private for-profit less-than-2-year	3,590	2,090	58	2,440	68
Private for profit 2-year or more	2,260	780	35	1,080	48
Student level					
Undergraduate	49,620	13,490	27	19,750	40
Graduate	10,510	60	1	1,410	13
First-professional	1,200	10	1	260	22

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] Includes study respondents for whom an *apparently* legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

[3] Over all years of postsecondary education reflected in the NSLDS files.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the total number of study respondents within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

This is consistent with the NPSAS:96 result of 22 percent. Over all years, 21,400 study respondents (35 percent) were matched. A handful of the matches for the NPSAS year involved graduate and first-professional students, who were not eligible for this form of financial aid. However, the matched graduate and first-professional sample members were undergraduates at some time during the year (and as such were eligible for this type of aid during the year). Consistent with expectations, the Pell match rate was highest among students at private for-profit less-than-2-year institutions.

3.5 Matching to ACT and SAT Data

Interview data pertaining to standard test scores have typically been characterized by high rates of nonresponse. To overcome this problem and provide this additional information to the student characteristics profile, student records were matched to the ACT and SAT files. Results of the ACT and SAT score matching are shown in table 3-7. A total of 16,500 unique cases matched to ACT data in the years 1991–92 through 1999–2000 (27 percent). If a student matched to more than one year, only the most recent test year information was kept on the file. SAT matches were acquired for 14,700 of the respondent cases (24 percent). This matching was conducted for test years 1995 through 1999. Similar to the ACT, if a student matched to more than one SAT test year, only the most recent record was kept in the file.

The highest rate of matches to the ACT file occurred with the public, 4-year institutions. These are the types of institutions that typically require the ACT, particularly in the middle part of the country. Students from schools with program offerings of 2 years or less experienced the lowest match rates. These students usually do not need to take the ACT. Another difference in match rates occurred among student levels. The graduate student match rate was much lower than the first-professional rate, and one would expect these to be comparable. This may be explained by looking at the average student age within the student levels. The first-professional average age was 27.8 years, while the graduate average age was 33.4 years. The graduate students were, on average, 5.6 years older than the first-professional students were. Therefore, the much lower rate for graduate students probably occurred because the matches of graduate test records did not extend far enough back in time to capture them.

The highest match rate to the SAT file was for students at schools with program offerings of 4 years. The rates were lowest for the 2-year-or-less institutions. In addition, rates were fairly low for the private for-profit schools. Consistent with the ACT matches, these rates reflect the type of institutions requiring the SAT. The low graduate and first-professional rates (as well as the difference between those two) can probably be explained by the average age differences among the different student levels, as described in the ACT discussion above.

3.6 Student Locating and Interviewing

Collecting data directly from student sample members in NPSAS:2000 consisted of three sequential steps: locating (identifying an initial telephone number or address at which the sample member could be reached), contacting (making the necessary attempts to reach the sample member), and interviewing (convincing the sample member to cooperate and participate in the interview). The amount of time and level of effort required to complete these steps with any given sample member varied considerably. Some sample members were reached and interviewed on the first attempt at contact. Others required considerable tracing (contacting of parents, former roommates, etc.) before they were successfully located and interviewed. Student interviewing for NPSAS was also complicated by the two-tiered study design (separate institutional and student data collections) and the varying rates of cooperation at the institution level. As a result, not all cases were available to be worked at the start of CATI data collection. Rather, the cases flowed into CATI after student lists were obtained from schools, students were sampled from the lists, and CADE information (particularly locating information) was collected from the participating institutions.

Figure 3-2 illustrates outcomes of student locating and interviewing and related case-resolution activities. Student data were collected primarily by computer-assisted telephone interview (CATI), with follow-up of nonrespondents by computer-assisted personal interview (CAPI) and/or self-administered mail survey. The data collection period ran from May 22, 2000, to February 28, 2001.

One week before a student case was released into CATI production, sample members were sent an advance mailing, which included a cover letter and study leaflet. These letters were mailed in batches twice a week as new cases were loaded into CATI to be worked. Letters were mailed to 64,800 sample. Additionally, 6,300 sample members requested that a letter be remailed during data collection, because they had either misplaced the letter or not received it.

Attempts were made to locate 66,300 of the original 70,200 sampled (3,300 cases were determined to be ineligible for NPSAS during CADE and 640 were sampled but not loaded into CATI because they had no locating/tracing information and/or such information was obtained too late). Overall, 54,400 (82 percent), including CATI ineligibles and exclusions, of the initial CATI sample were located; 12,000 (18 percent) of the original sample were not located. Of those located, 44,500 completed all or part of the interview; 6,500 were located, but did not complete the interview; 2,500 were determined to be ineligible for NPSAS based on their responses to the interview; and, about 900 were considered exclusion cases.[6]

Student interviewing results for those students who were located are also shown schematically in figure 3-2. Approximately 40,400 completed the entire interview, while 3,300 completed either a paper-copy mail questionnaire or an "abbreviated" interview (that is, a version of the questionnaire containing key data elements), and 750 completed only part (including at least section A) of the NPSAS interview.[7]

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[6] Exclusion cases consisted of students who were out of the country, unavailable during survey period, institutionalized, incapacitated or who had a language barrier.

[7] A large percentage (2,450 of 3,300) of the "abbreviated" interviews were conducted with Spanish-speaking-only sample members.

Table 3-7.—Results of ACT and SAT score matching, by selected institutional and student classifications

Type of student[1]	Study respondents[2]	Matched to ACT[3]		Matched to SAT[4]		Matched to Either ACT and SAT	
		Number	Percent[5]	Number	Percent[5]	Number	Percent[5]
All students	61,330	16,540	27	14,680	24	26,180	43
Institution level							
Less-than-2-year	5,080	560	11	280	6	770	15
2-year	11,150	2,150	19	1,610	15	3,330	30
4-year non-doctorate-granting	16,760	4,890	29	4,490	27	8,100	48
4-year doctorate-granting	28,340	8,940	32	8,290	29	13,980	49
Institutional control							
Public	38,570	11,630	30	9,160	24	17,540	46
Private not-for-profit	16,910	4,240	25	5,080	30	7,630	45
Private for-profit	5,850	670	12	440	8	1,010	17
Institutional sector							
Public less-than-2-year	1,050	160	15	20	2	180	17
Public 2-year	8,910	1,680	19	1,240	14	2,570	29
Public 4-year non-doctorate-granting	8,940	2,750	31	2,310	26	4,440	50
Public 4-year doctorate-granting	19,680	7,050	36	5,580	28	10,350	53
Private not-for-profit 2-year or less	1,470	350	24	270	19	540	37
Private not-for-profit 4-year non-doctorate-granting	7,130	2,010	28	2,100	30	3,470	49
Private not-for-profit 4-year doctorate-granting	8,320	1,880	23	2,710	33	3,620	44
Private for-profit less-than-2-year	3,590	360	10	220	6	530	15
Private for profit 2-year or more	2,260	310	14	220	10	490	22
Student level							
Undergraduate	49,620	15,410	31	14,330	29	24,840	50
Graduate	10,510	840	8	260	2	1,000	10
First-professional	1,200	290	24	90	8	340	28

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] Includes study respondents for whom an apparently legitimate Social Security number was available. Study respondents were defined as eligible sample students for whom completed CADE and/or student interview data were obtained.

[3] Matching attempts included ACT's taken between 1991–1992 and 1999–2000.

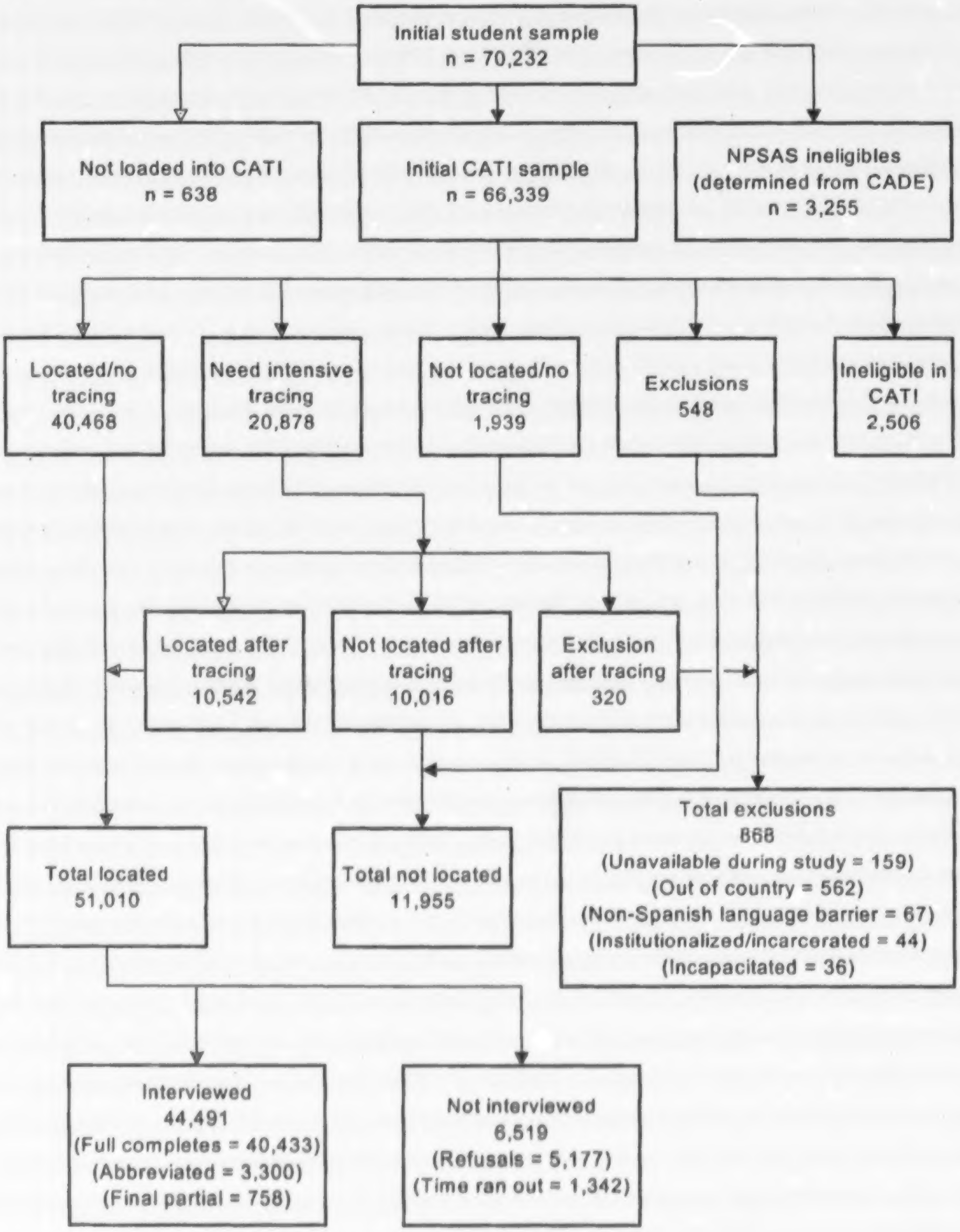
[4] Matches attempts included SAT's taken from 1995–1999

[5] Percentages are unweighted and based on the total number of study respondents within the row under consideration.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure 3-2.—Student sample case flow through locating, CATI interviewing, and related case resolution


Initial student sample
n = 70,232
Not loaded into CATI
n = 638
Initial CATI sample
n = 66,339
NPSAS ineligibles
(determined from CADE)
n = 3,255
Located/no tracing
40,468
Need intensive tracing
20,878
Not located/no tracing
1,939
Exclusions
548
Ineligible in CATI
2,506
Located after tracing
10,542
Not located after tracing
10,016
Exclusion after tracing
320
Total located
51,010
Total not located
11,955
Total exclusions
868
(Unavailable during study = 159)
(Out of country = 562)
(Non-Spanish language barrier = 67)
(Institutionalized/incarcerated = 44)
(Incapacitated = 36)
Interviewed
44,491
(Full completes = 40,433)
(Abbreviated = 3,300)
(Final partial = 758)
Not interviewed
6,519
(Refusals = 5,177)
(Time ran out = 1,342)

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

A total of 6,500 potentially eligible students who were located were not interviewed. Of these, about 5,200 were explicit final refusals. These cases represent situations in which subsequent attempts at interviewing were determined to be infeasible or unwise. Also not interviewed were 1,340 sample members for whom time ran out before they could complete the interview. These cases were loaded late in the data collection period (in January or February 2001), restricting the time to adequately work them.[8]

NPSAS:2000 student locating and interviewing (for those located) results by institution type and student type are provided in table 3-8, for eligible sample members for whom CATI locating was attempted. Students in private for-profit institutions proved to be more difficult to find (locate rates: 72 percent private for-profit; 82 percent private not-for-profit; 82 percent public) and slightly less willing to participate once the student was located (interviewed-when-located rates: 85 percent private for-profit; 88 percent private not-for-profit; 87 percent public). Similarly, the locate rates were lower for students in less-than-2-year schools (71 percent) and 2-year institutions (78 percent) than they were for either 4-year doctorate-granting (88 percent) or 4-year non-doctorate-granting (89 percent) institutions. In terms of student type, baccalaureate recipients (84 percent) and graduate and first-professional students (83 percent) were easier to locate than were non-baccalaureate-receiving undergraduates (79 percent). Once they were located, however, there were only slight differences among these groups in terms of the percentage interviewed.

Weighted overall CATI response rates are provided in table 3-9 and constitute the target population directly represented by the NPSAS:2000 study respondents. This rate was computed as the product of the weighted institution and student response rates. Coverage of entire clusters of students was lost when sample institutions did not participate. Additionally, coverage was lost when individual students in participating institutions failed to respond. The cumulative effect on coverage of the student population is reflected by the overall weighted student CATI response rate of 66 percent, ranging from 72 percent for students attending private, not-for-profit, doctorate-granting institutions to 57 percent for students attending public, less-than-2-year institutions.

3.7 Overall Study Participation

The students included in the final NPSAS:2000 analysis database were defined to be the overall "study respondents," meeting the requirements specified above for being a CADE record respondent and/or CATI respondent. Using this definition of the overall study response status, table 3-10 shows that about 62,000 of the 64,500 eligible sample students were classified as "study respondents" for an unweighted study response rate of 96 percent. This table also presents the study response rates, weighted and unweighted, by various institutional and student classifications. The weighted rates are based on the student sampling weights with adjustments for institutional nonresponse and for student multiplicity (attendance at more than one NPSAS-eligible institution during the NPSAS year). The overall weighted study response rate in table 3-

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[8] This group likely contains, however, an unknown number of implicit refusal cases, individuals who after first contact used answering machines or friends/relatives as gatekeepers, as well as those who continued to make (and then break) appointments for an interview.

10 was 89 percent. Both weighted and unweighted response rates shown in table 3-10 are quite consistent.

Table 3-8.—NPSAS:2000 student locating and interview results by institution and student type

Type of student[1]	Total [2]	Located		Interviewed when located	
		Number located	Percent located	Number interviewed	Percent interviewed
All students	62,970	51,010	81	44,490	87
Institution level					
Less-than-2-year	5,560	3,940	71	3,360	85
2-year	11,350	8,890	78	7,490	84
4-year non-doctorate-granting	17,090	14,280	84	12,630	89
4-year doctorate-granting	28,960	23,900	83	21,020	88
Institutional control					
Public	39,330	32,250	82	28,060	87
Private not-for-profit	17,340	14,200	82	12,540	88
Private for-profit	6,300	4,560	72	3,890	85
Institutional sector					
Public less-than-2-year	1,150	870	76	740	86
Public 2-year	9,050	7,130	79	5,950	84
Public 4-year non-doctorate-granting	9,040	7,620	84	6,730	88
Public 4-year doctorate-granting	20,090	16,630	83	14,640	88
Private not-for-profit 2-year or less	1,530	1,110	73	980	88
Private not- 4-year non-doctorate-granting	7,290	6,090	84	5,410	89
Private not-for-profit 4-year doctorate-granting	8,520	7,000	82	6,150	88
Private for-profit less-than-2-year	3,940	2,760	70	2,350	85
Private for-profit 2-year or more	2,360	1,800	76	1,550	86
Student type					
Total undergraduate	50,840	40,890	80	35,540	87
B&B	14,030	11,780	84	10,400	88
Other undergraduates	36,810	29,110	79	25,130	86
Graduate	10,870	9,080	84	8,040	89
First-professional	1,250	1,040	83	920	88

[1] Both institution and student classifications were verified to correct classification errors on the sampling frame.

[2] Statistics exclude 5,761 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 868 sample members who were either unavailable for the duration of the survey, out of country, or institutionalized; and 638 cases that were sampled but never worked in CATI.

NOTE: To protect confidentiality, some numbers have been rounded. All percentages are unweighted and based on the eligible count within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 3-9.—Student interview (CATI) response rates, by selected institutional and student classifications

Type of student	Eligible students[2]	Student interview completed			Weighted institutional response rate	Overall weighted response rate[3]
		Number	Unweighted percent	Weighted percent		
All students	63,600	44,490	70	72	91	66
Institutional level						
Less-than-2-year	5,740	3,540	62	68	88	59
2-year	11,400	7,490	66	69	96	66
4-year non-doctorate-granting	17,210	12,630	73	75	86	65
4-year doctorate-granting	29,530	21,020	71	74	96	71
Institutional control						
Public	39,490	28,060	71	72	94	68
Private not-for-profit	17,700	12,540	71	74	89	66
Private for-profit	6,420	3,890	61	69	91	63
Institutional sector						
Public less-than-2-year	1,150	740	65	72	79	57
Public 2-year	9,050	5,950	66	69	96	66
Public 4-year non-doctorate-granting	9,050	6,730	74	76	94	71
Public 4-year doctorate-granting	20,240	14,640	72	74	95	70
Private not-for-profit 2-year or less	1,630	980	60	69	98	67
Private not-for-profit 4-year non-doctorate-granting	7,410	5,410	73	75	82	61
Private not-for-profit 4-year doctorate-granting	8,660	6,150	71	74	97	72
Private for-profit less-than-2-year	4,060	2,350	58	67	88	59
Private for profit 2-year or more	2,360	1,550	66	70	95	66
Student level						
Undergraduate	51,340	35,540	69	71	93	66
Graduate	11,000	8,040	73	77	87	67
First-professional	1,270	920	73	78	96	75

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] The eligible group comprised all 70,200 sampled students minus the 5,800 found to be NPSAS-ineligible at any stage of data collection and 900 CATI exclusions. However, in order to estimate student interview response rates most accurately, the 638 sample members who were never loaded into CATI were included in the eligible totals in this table.

[3] The overall CATI weighted response rate was computed as the product of the weighted student CATI yield and the weighted institutional yield.

[4] The weighted institutional response rate for a given student level was calculated as the response rate of all institutions with that level of offering.

NOTE: To protect confidentiality, some numbers have been rounded. Percentages are based on the eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 3-10.—Study respondents, by selected institutional and student classifications

Type of student[1]	Eligible students[2]	Study respondents			Weighted institutional response rate	Overall weighted response[3]
		Number	Unweighted percent	Weighted percent[3]		
All students	64,470	61,770	96	97	91	89
Institution level						
Less-than-2-year	5,810	5,140	89	94	88	82
2-year	11,550	11,220	97	97	96	93
4-year non-doctorate-granting	17,380	16,910	97	97	86	84
4-year doctorate-granting	29,730	28,490	96	97	96	93
Institutional control						
Public	39,980	38,680	97	97	94	92
Private not-for-profit	18,000	17,110	95	97	89	86
Private for-profit	6,490	5,980	92	97	91	88
Institutional sector						
Public less-than-2-year	1,170	1,060	91	95	79	76
Public 2-year	9,170	8,930	97	97	96	94
Public 4-year non-doctorate-granting	9,130	8,950	98	97	94	91
Public 4-year doctorate-granting	20,520	19,730	96	97	95	92
Private not-for-profit 2-year or less	1,660	1,510	91	98	98	96
Private not-for-profit 4-year non-doctorate-granting	7,480	7,190	96	97	82	79
Private not-for-profit 4-year doctorate-granting	8,860	8,410	95	97	97	94
Private for-profit less-than-2-year	4,100	3,630	89	93	88	82
Private for profit 2-year or more	2,400	2,350	98	99	95	94
Student level						
Undergraduate	52,030	49,930	96	97	93[4]	90
Graduate	11,160	10,640	95	97	87[4]	85
First-professional	1,280	1,200	93	95	96[4]	92

[1] Both institutional and student classifications were verified to correct classification errors on the sampling frame.

[2] The eligible group comprised all 70,200 sampled students minus the 5,800 found to be NPSAS-ineligible at any stage of data collection. However, in order to estimate "study" response most accurately, CATI exclusions as well as sample members never loaded into CATI were included in the eligible totals in this table.

[3] The overall study weighted response rate was computed as the product of the weighted student yield and the weighted institutional yield and, thus, accounts for nonresponse at each stage of data collection.

[4] The weighted institution response rate for a given student level was calculated as the response rate of all institutions with that level of offering.

NOTE: To protect confidentiality, some numbers have been rounded. Percentages are based on the eligible students within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

3.8 Reinterviews

Among eligible sample members who completed the NPSAS:2000 interview, a random sample was selected to participate in a reliability reinterview that contained a small subset of the interview items. The reinterviews began approximately 1 month after the initial interview.[9] A total of 275 respondents were selected for the reliability reinterview. The reinterview sample, together with rates of participation, are shown in table 3-11.[10]

Table 3-11.—Reliability reinterview results, by student and institution classifiers

Type of student[1]	Selected for reinterview		Participated in reinterview	
	Number	Percent[2]	Number	Percent[3]
All students	275	100.0	235	85.5
Institutional control				
Public	178	64.7	153	86.0
Private not-for-profit	75	27.3	66	88.0
Private for-profit	22	8.0	16	72.7
Student level				
Undergraduate	231	84.0	195	84.4
Graduate	39	14.2	35	89.7
First-professional	5	1.8	5	100.0

[1] Institutional classifications were verified by participating institutions to correct classification errors on the sampling frame.

[2] Percentage of total cases selected for reinterview.

[3] Percentages are based on the number of students in the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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[9] Unfortunately, because of delays in relocating and recontacting some individuals selected for this substudy, the actual time interval between initial interview and reinterview was as long as 6 months.

[10] Due to the built-in delay in administering the reinterviews and the plan to complete the reinterviews during the same time frame as other interviews, the reinterview population was more heavily weighted with those who responded relatively early to the initial interview; consequently, reported response rates are probably biased upwards. Reinterview respondents were also disproportionately represented by those most easily located and most easily convinced to participate in the initial interview.

Chapter 4
Evaluation of Operations and Data

Evaluation of study methodology and procedures, as well as of study outcomes and products, were planned and conducted throughout the course of NPSAS:2000. The results of these quantitative and qualitative analyses provide information pertaining to the efficacy of study data and are also useful in planning for subsequent waves of NPSAS.

4.1 Enrollment List Acquisition and Processing

To facilitate control over student sample yield, student sampling within an institution was deferred until student enrollment lists were obtained for all applicable terms. Additionally, for institutions conferring bachelor's degrees, student sampling could not be done until lists identifying baccalaureate recipients had been received. Given these constraints and those imposed by the sequential nature of the student data collection (i.e., CPS matching followed by institutional records collection and then telephone interviewing), and considering the study timeframe for completion of these activities, it was important to obtain enrollment lists from institutions as early as possible in the 2000 calendar year. However, under the adopted study design, delays were necessitated at institutions using certain calendar systems. Of course, other delays were caused by insufficient institutional resources, adoption of new record-keeping systems, confidentiality policies, and the like. Even though reimbursement was offered for computer and staff time needed to compile the lists, obtaining the lists at a number of institutions involved a considerable number of prompting and follow-up telephone calls.

The process of contacting institutions and obtaining student enrollment lists spanned a 12-month period, from January through December 2000, during which time usable lists were obtained from 999 of the eligible sample institutions. Table 4-1 presents the number of enrollment lists returned by month and by institutional calendar system; cumulative receipt is depicted in figure 4-1.

As can be seen, about two-thirds of the enrollment lists were obtained by the end of June, and 95 percent of all institutions that provided lists did so by the end of September. Because institutions using semester/trimester systems represented about 75 percent of the total participating institutions, the "all institution" results closely parallel those with this type of calendar system.

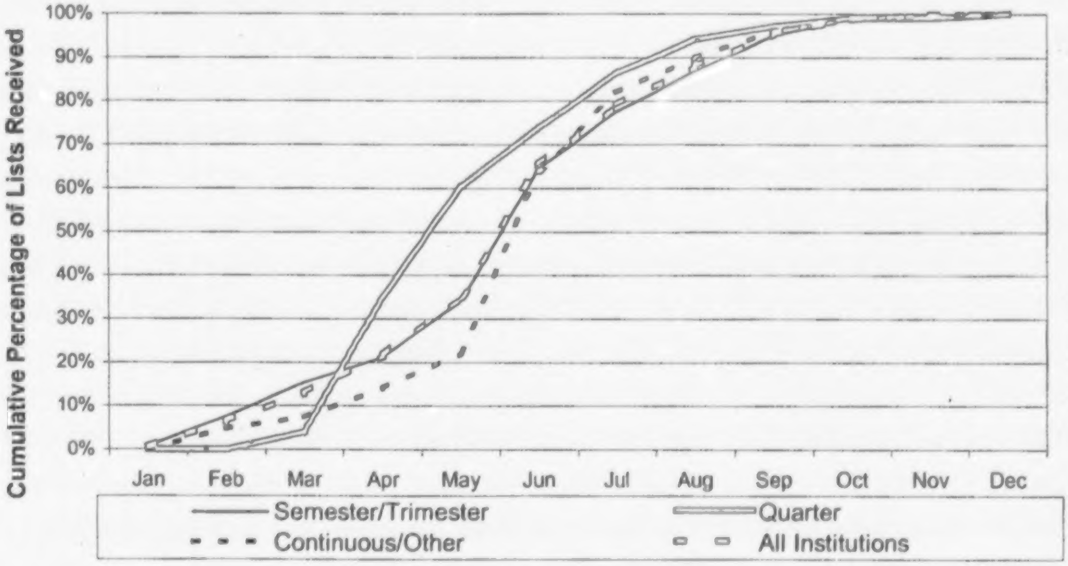
Table 4-1.—Enrollment list receipt, by month, and institutional calendar system

Month	All institutions		Semester/trimester		Quarter		Continuous/other	
	Number received	Percent	Number received	Percent	Number received	Percent	Number received	Percent
All months	999	100.0	747	74.8	103	10.3	149	14.9
Jan	5	0.5	5	0.5	0	0.0	0	0.0
Feb	58	5.8	51	5.1	0	0.0	7	0.7
Mar	66	6.6	58	5.8	4	0.4	4	0.4
Apr	86	8.6	44	4.4	32	3.2	10	1.0
May	134	13.4	96	9.6	26	2.6	12	1.2
Jun	303	30.3	227	22.7	14	1.4	62	6.2
Jul	138	13.8	98	9.8	13	1.3	27	2.7
Aug	89	8.9	69	6.9	8	0.8	12	1.2
Sep	73	7.3	61	6.1	3	0.3	9	0.9
Oct	35	3.5	29	2.9	2	0.2	4	0.4
Nov	10	1.0	8	0.8	0	0.0	2	0.2
Dec	2	0.2	1	0.1	1	0.1	0	0.0

NOTE: All statistics are based on eligible institutions that provided enrollment lists. Percentages are based on the "all months" total for all institutions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure 4-1.—Cumulative percentage of enrollment list receipt, by month (2000), and institutional calendar system



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

As noted above, some delays were directly attributable to the institution's calendar system. Institutions using a quarter system were considerably more likely than those on a semester/trimester or continuous enrollment system to provide lists early; 60 percent of the institutions on the quarter system provided complete student lists by the end of May compared to only 34 percent of the institutions on the semester/trimester system and 22 percent of the institutions on a continuous or other calendar system. This is in marked contrast to the list acquisition experience in NPSAS:96, which resulted in 80 percent of the semester/trimester institutions providing lists by May of the study year. Differences in list acquisition rates between NPSAS:96 and NPSAS:2000 can be explained by the need in NPSAS:2000 to collect lists of graduating seniors for sampling of the B&B cohort. Institutions including such students were unable to identify them until later in the academic year.

Institutional participation was also examined for potential effects of prior NPSAS participation. Summary results of these analyses are shown in table 4-2. Among eligible institutions, the NPSAS:2000 enrollment list provision rate among the 411 institutions that had previously participated in NPSAS was 94 percent. The list provision rate was 93 percent among the 612 institutions that had not previously participated in any NPSAS.

Institutional participation across NPSAS rounds also was examined in terms of the Carnegie classification categories, as shown in table 4-3. Table 4-4 shows the distribution of NPSAS:2000 participating institutions by the 2000 Carnegie classification. Table 4-5 shows the number of historically black colleges and universities participating in the current and prior NPSAS rounds.

Although an electronic list was preferred, institutions were told that they could provide lists in their preferred format. Types of lists provided by participating institutions are shown, by highest level of offering, in table 4-6. Overall, about 86 percent of institutions provided some type of electronic list, and the remaining 14 percent sent only paper-copy lists. Less-than-2-year institutions provided paper-copy lists more often than electronic lists. Two-year and 4-year institutions provided electronic lists about 85 percent or more of the time. This is quite likely related to 2- and 4-year institutions having larger average sizes (and associated increased capability of the computing facility and staff).

Returned lists also were evaluated in terms of appropriateness of format and documentation (relative to instructions provided), and accuracy of student counts. Table 4-7 indicates the major types of discrepancies encountered with the lists received. Over half of the institutions provided lists with one or more such problems, and among problems encountered, the principal one (involving about a third of the institutions) was "suspect count." This check involved disagreement, by 25 percent or more, between the count obtained from lists (after correction for duplication) and the "unduplicated" count from the 1998–99 IPEDS IC file.[1] The check was not suspended or relaxed (unlike prior rounds of NPSAS) because many of the institutions that were called about the discrepancy indicated that the sampling list counts were, in fact, incorrect.

The next most frequent single problem experienced with provided lists (involving about 5 percent of the institutions overall) was failure to identify student strata; i.e., the institution did not provide student level or major field of study for baccalaureate recipients. This problem only existed for 4-year institutions because less-than-4-year institutions had only an undergraduate stratum. The percentage of institutions with multiple problems was 8.8 percent, and many of these included inability to identify strata.

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[1] Separate checks were performed, where applicable, for baccalaureates, undergraduates, graduate students, and first-professional students.

Table 4-2.—Institutional NPSAS:2000 enrollment list participation, by prior NPSAS participation

Type of institution[1]	Eligible institutions	No prior NPSAS participation			Participated at least once		
			Provided lists			Provided lists	
		Number	Number	Percent[2]	Number	Number	Percent[3]
All institutions	1,072	661	612	92.6	411	387	94.2
Institution level							
Less-than-2-year	117	101	89	88.1	16	14	87.5
2-year	244	177	167	94.4	67	65	97.0
4-year non-doctorate-granting	315	215	197	91.6	100	95	95.0
4-year doctorate-granting	396	168	159	94.6	228	213	93.4
Institutional control							
Public	576	322	301	93.5	254	244	96.1
Private not-for-profit	371	234	213	91.0	137	126	92.0
Private for-profit	125	105	98	93.3	20	17	85.0
Institutional sector							
Public less than-2-year	32	20	16	80.0	12	12	100.0
Public 2-year	196	141	132	93.6	55	53	96.4
Public 4-year non-doctorate-granting	127	67	64	95.5	60	59	98.3
Public 4-year doctorate-granting	221	94	89	94.7	127	120	94.5
Private not-for-profit 2-year or less	32	27	25	92.6	5	5	100.0
Private not-for-profit 4-year non-doctorate-granting	171	136	121	89.0	35	32	91.4
Private not-for-profit 4-year doctorate-granting	168	71	67	94.4	97	89	91.8
Private for-profit less than-2-year	75	71	65	91.5	4	2	50.0
Private for profit 2-year or more	50	34	33	97.1	16	15	93.8

[1] Institutional classifications were verified by the institutions to correct classification errors on the sampling frame.
[2] Percentages are based on the count of eligible institutions with no prior NPSAS participation within the row under consideration.
[3] Percentages are based on the count of eligible institutions with prior NPSAS participation within the row under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-3.—Distribution of participating NPSAS institutions, by participation in NPSAS, by Carnegie classification category and year of study

Carnegie institutional classification (1994)	NPSAS:87		NPSAS:90		NPSAS:93		NPSAS:96		NPSAS:2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All institutions	880	100.0	990	100.0	1,061	100.0	836	100.0	999	100.0
Research I	72	8.2	64	6.5	67	6.3	78	9.3	83	8.3
Public	49	5.6	44	4.4	51	4.8	53	6.3	56	3.0
Non-public	23	2.6	20	2.0	16	1.5	25	3.0	27	1.5
Research II	25	2.9	22	2.2	25	2.4	23	2.8	33	3.3
Public	15	1.7	14	1.4	19	1.8	15	1.8	25	1.4
Non-public	10	1.1	8	0.8	6	0.6	8	1.0	8	0.4
Doctoral I	30	3.4	27	2.7	31	2.9	36	4.3	42	4.2
Public	14	1.6	10	1.0	15	1.4	16	1.9	24	1.3
Non-public	16	1.8	17	1.7	16	1.5	20	2.4	18	1.0
Doctoral II	31	3.5	37	3.7	38	3.6	31	3.7	40	4.0
Public	14	1.6	19	1.9	22	2.1	19	2.3	28	1.5
Non-public	17	1.9	18	1.8	16	1.5	12	1.4	12	0.7
Master's I	127	14.5	154	15.6	227	21.4	167	20.0	232	23.2
Public	77	8.8	89	9.0	136	12.8	107	12.8	138	7.5
Non-public	50	5.7	65	6.6	91	8.6	60	7.2	94	5.1
Master's II	14	1.5	19	1.9	33	3.1	22	2.6	25	2.5
Public	5	0.6	6	0.6	13	1.2	6	0.7	8	0.4
Non-public	9	1.0	13	1.3	20	1.9	16	1.9	17	0.9
Baccalaureate I	25	2.9	27	2.7	46	4.3	18	2.2	25	2.5
Baccalaureate II	50	5.7	63	6.4	104	9.8	56	6.7	83	8.3
Associate of arts colleges	236	26.8	247	24.9	225	21.2	202	24.2	211	21.1
Theological	18	2.0	8	0.8	18	1.7	9	1.1	10	1.0
Medical	5	0.5	16	1.6	22	2.1	4	0.5	17	1.7
Other health	7	0.8	12	1.2	11	1.0	5	0.6	6	0.6
Engineering and technology	9	1.0	6	0.6	6	0.6	3	0.4	7	0.7
Business and management	13	1.5	12	1.2	10	0.9	13	1.6	11	1.1
Other*	12	1.4	18	1.8	25	2.4	11	1.3	15	1.5
Not classified	206	23.4	258	26.1	173	16.3	158	18.9	159	15.9

*Includes art/music/design, law, teaching, other specialized, and tribal colleges and universities.

NOTE: To protect confidentiality, breakdowns are not provided by institution control, except as shown above. Since completion of the NPSAS:96, a revised Carnegie classification system has been adopted (see table 4-4). However, for purposes of historical comparison, the distribution of participating NPSAS:2000 institutions is presented here based on the former Carnegie classification categories.

NOTE: Details may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1989–90, 1992–93, 1995–96, 1999–2000.

Table 4-4.—Distribution of participating NPSAS:2000 institutions, by 2000 Carnegie classification

Carnegie institutional classification (2000)	Number	Percent
All institutions	999	100.0
Doctoral/research extensive	138	13.8
Doctoral/research intensive	78	7.8
Master's I	240	24.0
Master's II	27	2.7
Baccalaureate I	32	3.2
Baccalaureate II	50	5.0
Baccalaureate/associate's colleges	13	1.3
Associate's colleges	216	21.6
Theological	11	1.1
Medical	15	1.5
Other health	7	0.7
Engineering and technology	6	0.6
Business and management	8	0.8
Other*	17	1.7
Not classified	141	14.1

*Includes law, teaching, other specialized, and tribal colleges and universities.

NOTE: Details may not sum to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-5.—NPSAS participation of historically black colleges and universities (HBCU)

Participated in:	Number of HBCU's participating	HBCU's as a percentage of total number of participating institutions
NPSAS:87	17	1.9
NPSAS:90	15	1.5
NPSAS:93	28	2.6
NPSAS:96	16	1.9
NPSAS:2000	23	2.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-6.—Types of student lists provided by institutions, by highest level of offering

Highest level of offering	Type of lists received	Number	Percent*
All institutions	All lists	999	100.0
	Electronic	850	85.1
	Hard-copy	143	14.3
	Both electronic and hard-copy	6	0.6
Less-than-2-year	All lists	104	100.0
	Electronic	41	39.4
	Hard-copy	63	60.6
	Both electronic and hard-copy	0	0.0
2-year	All lists	232	100.0
	Electronic	198	85.3
	Hard-copy	31	13.4
	Both electronic and hard-copy	3	1.3
4-year non-doctorate-granting	All lists	292	100.0
	Electronic	263	90.1
	Hard-copy	29	9.9
	Both electronic and hard-copy	0	0.0
4-year doctorate-granting	All lists	373	100.0
	Electronic	349	93.6
	Hard-copy	21	5.6
	Both electronic and hard-copy	3	0.8

*Percentages are based on the "all lists" total within the type of institution under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-7.—Types of discrepancies encountered with student lists, by highest level of offering

Highest level of offering	Type of discrepancy encountered[1]	Number	Percent[2]
All institutions *(n=999)*	None	441	44.1
	Count out of bounds	333	33.3
	Unreadable file/list	6	0.6
	No baccalaureate list	21	2.1
	Missing term	20	2.0
	Could not identify strata	50	5.0
	Multiple problems	88	8.8
	Other	40	4.0
Less-than-2-year *(n=103)*	None	50	48.5
	Count out of bounds	38	36.9
	Unreadable file/list	2	1.9
	Missing term	3	2.9
	Multiple problems	2	1.9
	Other	8	7.8
2-year *(n=232)*	None	144	62.1
	Count out of bounds	74	31.9
	Unreadable file/list	3	1.3
	Missing term	2	0.9
	Multiple problems	2	0.9
	Other	7	3.0
4-year non-doctorate-granting *(n=292)*	None	111	38.0
	Count out of bounds	94	32.2
	No baccalaureate list	9	3.1
	Missing term	9	3.1
	Could not identify strata	20	6.8
	Multiple problems	38	13.0
	Other	11	3.8
4-year doctorate-granting *(n=372)*	None	136	36.6
	Count out of bounds	127	34.1
	Unreadable file/list	1	0.3
	No baccalaureate list	12	3.2
	Missing term	6	1.6
	Could not identify strata	30	8.1
	Multiple problems	46	12.4
	Other	14	3.8

[1] Categories are mutually exclusive, with an institution being included in only one category within highest level of offering.

[2] Percentages are based on the "all lists" total (n) within the type of institution under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

4.2 Institutional Record Abstracting

CADE procedures to abstract information from institutional student records were first initiated in NPSAS:93. As a result of feedback from NPSAS:93 and NPSAS:96 Institutional Coordinators, a number of procedures were implemented for NPSAS:2000 to enhance the effectiveness and user-friendliness of the approach, particularly for the institutional CADE users.

Other CADE procedural refinements were introduced to facilitate the timeliness of CADE completion, including (1) prescheduling institutions for field staff, (2) maintaining a "hotline" to resolve operational or interpretational problems, (3) scheduling biweekly calls to prompt Web-CADE institutions and to answer questions that may have arisen, and (4) scheduling weekly calls to field staff to assess their progress.

4.2.1 Preloading Record Data into CADE

To reduce the CADE data entry effort, a large number of elements (summarized in table 4-8) were preloaded into CADE records prior to collection at the institution. This included customizing the financial aid award section of CADE to include nonfederal aid that was common to a particular institution. Such customization proved highly successful during NPSAS:96 and during the NPSAS:2000 field test. Therefore, it was repeated for the NPSAS:2000 full-scale study.

Table 4-8.—Nature and source of elements preloaded into CADE

CADE data element set	Data source
Institution name/ID	IPEDS
Names of most common institution financial aid awards	Institutional Coordinator
Names of most common state financial aid awards	Sallie Mae state aid
Institution clock/credit hour indicator	IPEDS, Institutional Coordinator
Institution term names and dates	Institutional Coordinator
Student name, SSN, student ID in institution records	Enrollment list
Student type indicator (undergraduate/graduate/first-professional)	Enrollment list
Student date of birth, veteran status, and citizenship	CPS record
Student address, phone number, driver's license number and state	CPS record
Student dependency and expected family contribution	CPS record
Flag indicating whether or not student matched to CPS	CPS record

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Data were preloaded from a variety of sources. These sources include IPEDS and the Sallie Mae state aid report, in addition to data collected from contact with the Institutional Coordinator and from enrollment lists. The most extensive set of preloaded data were obtained from the CPS for federal financial aid applicants. The data from the CPS were used in two different ways. Some items were prefilled with the data from the CPS and users could simply leave it there if it was correct. These data elements included the student's address, phone number, driver's license number, driver's license state, dependency status, and expected family contribution to postsecondary education costs. Other items were preloaded in order to validate the data entered by users. If users entered something different from what was preloaded from

CPS, they would get a warning indicating the difference and could choose to accept the data from CPS or to keep the data originally entered. These variables included citizenship status, veteran status, and student date of birth.

4.2.2 CADE Data Completeness

For a student to be considered a CADE respondent in NPSAS:2000, the student's record abstracted from the institution was required to indicate whether the student received any financial aid, some information regarding the student's enrollment status during the NPSAS year, and valid responses to a portion of the demographic items in the CADE student characteristics section. This definition was roughly equivalent to, though slightly more stringent than, that used in either NPSAS:93 or NPSAS:96.

Under this definition, as shown in the previous chapter (see table 3-4), 92 percent of the eligible sample students were classified as CADE respondents. In large measure, this was due to the user-friendly design of the Web-CADE software and the successful incorporation of data completeness checks built into the software application.

With regard to CADE item-level nonresponse, it is not surprising that certain items had a lower level of completeness than reflected in the overall CADE response rate. Institution record-keeping systems vary dramatically in the type of data elements maintained for each student, and it was anticipated that not all data elements would be available at every institution. However, as can be seen in table 4-9, most of the major CADE data elements showed a relatively high percentage in terms of item-level completeness.

Some differences in CADE data completeness between Web-CADE and field-CADE cases are apparent, as evidenced in table 4-9. The most notable difference is that field data collectors generally provided more complete phone number data than did self-CADE institutions. This phenomenon was also observed in NPSAS:96, and is undoubtedly a result of the emphasis placed on locating data during the field data collector training sessions. The overall completeness of the marital status item was, somewhat surprisingly, about eight percentage points lower in the full-scale study than was observed in the field test.

4.2.3 CADE Abstraction Method: Original Versus Final Choice

As was explained in chapter 3, the NPSAS Institutional Coordinator was given an option as to how information about sampled students would be abstracted from institution records. The first option was for the institution staff to use the Web-CADE application, while the second option was to have trained contractor field data collectors abstract the data. Additionally, institutions were given the option of providing data files with either complete CADE data or (as a last resort) abbreviated data (17 variables) for all sampled students. The first option was the recommended option, since it was the least expensive and the field test experience indicated that the Web-based approach was indeed feasible for most institutions.

Table 4-9.—CADE item completion rates, by method of abstraction

Data element	Method of abstraction							
	Total		Web		Field		Data file	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Total CADE respondents	59,284	100.0	41,134	100.0	15,210	100.0	2,940	100.0
Student characteristics								
Gender	58,627	98.9	40,535	98.5	15,152	99.6	2,940	100.0
Marital status	39,652	66.9	27,277	66.3	10,231	67.3	2,144	72.9
Citizenship	56,073	94.6	39,125	95.1	14,014	92.1	2,934	99.8
Veteran status	45,771	77.2	31,291	76.1	11,641	76.5	2,839	96.6
High school degree	42,788	72.2	29,824	72.5	10,827	71.2	2,137	72.7
Race	50,563	85.3	35,840	87.1	12,047	79.2	2,676	91.0
Hispanic status	49,645	83.7	34,354	83.5	12,383	81.4	2,908	98.9
At least one phone number	57,060	96.2	39,435	95.9	14,837	97.5	2,788	94.8
At least two phone numbers	14,656	24.7	8,916	21.7	5,086	33.4	654	22.2
Enrollment								
Type of degree program	56,923	96.0	39,680	96.5	14,725	96.8	2,518	85.6
Student class level	53,269	89.9	37,558	91.3	13,243	87.1	2,468	83.9
Tuition jurisdiction classification	36,754	98.2	24,573	99.3	9,666	99.1	2,515	86.2
Financial aid*								
Any aid received	59,284	100.0	41,134	100.0	15,210	100.0	2,940	100.0
Federal aid received	59,064	99.6	41,091	99.9	15,110	99.3	2,863	97.4
State aid received	59,012	99.5	41,079	99.9	15,076	99.1	2,857	97.2
Undergraduate aid received	58,996	99.5	41,088	99.9	15,078	99.1	2,830	96.3
Graduate aid received	58,942	99.4	41,077	99.9	15,090	99.2	2,775	94.4
Other aid received	58,989	99.5	41,079	99.9	15,089	99.2	2,821	96.0

*These items were yes/no questions. Aid amounts were collected in separate follow-up questions.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

As can be seen in table 4-10, the large majority of Institutional Coordinators (88 percent) initially chose the first option (Web-CADE). Subsequently, a portion of the coordinators changed their preference and several more were convinced to convert to field-CADE by RTI in order to ensure timely completion of this phase of study data collection. The relatively high proportion of sample institutions that completed Web-CADE (71 percent) indicates that neither confidentiality concerns nor inadequate access to the Internet turned out to be major hindrances for the study.

The option of providing the CADE data via a structured data file was offered to institutions more aggressively than in previous NPSAS studies, and this option was ultimately selected by about 7 percent of the institutions. The relatively complex structure of the CADE database resulted in many institutions initially selecting this abstraction method but subsequently opting for either Web-CADE or field-CADE. On the other hand, some institutions initially selecting data file CADE, as well as others selecting Web-CADE, subsequently decided to respond with a data file.

Table 4-10.—Institutional original and final choices of record abstraction method

Type of institution[1]	Total participating institutions	Original abstraction method[2]					
		Web number	Percent	Field number	Percent	Data file number	Percent
Total	999	877	87.8	62	6.2	60	6.0
Institutional level							
Less-than-2-year	103	94	91.3	4	3.9	5	4.9
2-year	232	203	87.5	17	7.3	12	5.2
4-year non-doctorate-granting	292	264	90.4	11	3.8	17	5.8
4-year doctorate granting	372	316	84.9	30	8.1	26	7.0
Institutional control							
Public	545	470	86.2	34	6.2	41	7.5
Private not-for-profit	339	302	89.1	23	6.8	14	4.1
Private for profit	115	105	91.3	5	4.3	5	4.3
Institutional sector							
Public Less than 2-year	28	24	85.7	2	7.1	2	7.1
Public 2-year	185	164	88.6	11	5.9	10	5.4
Public 4-year non-doctorate granting	123	108	87.8	5	4.1	10	8.1
Public 4-year doctorate granting	209	174	83.3	16	7.7	19	9.1
Private not-for-profit 2-year or less	30	27	90.0	3	10.0	0	0.0
Private not-for-profit 4-year non-doctorate granting	153	140	91.5	6	3.9	7	4.6
Private not-for-profit 4-year doctorate granting	156	135	86.5	14	9.0	7	4.5
Private for-profit Less than 2-year	67	62	92.5	2	3.0	3	4.5
Private for-profit 2-year or more	48	43	89.6	3	6.3	2	4.2

Type of institution[1]	Total participating institutions	Final abstraction method[3]					
		Web number	Percent	Field number	Percent	Data file number	Percent
Total	999	707	70.8	221	22.1	71	7.1
Institutional level							
Less-than-2-year	103	64	62.1	29	28.2	10	9.7
2-year	232	184	79.3	37	15.9	11	4.7
4-year non-doctorate-granting	292	217	74.3	54	18.5	21	7.2
4-year doctorate granting	372	242	65.1	101	27.2	29	7.8
Institutional control							
Public	545	372	68.3	124	22.8	49	9.0
Private not-for-profit	339	256	75.5	67	19.8	16	4.7
Private for profit	115	79	68.7	30	26.1	6	5.2
Institutional sector							
Public less than 2-year	28	15	53.6	10	35.7	3	10.7
Public 2-year	185	151	81.6	24	13.0	10	5.4
Public 4-year non-doctorate granting	123	83	67.5	28	22.8	12	9.8
Public 4-year doctorate granting	209	123	58.9	62	29.7	24	11.5
Private not-for-profit 2-year or less	30	17	56.7	11	36.7	2	6.7
Private not-for-profit 4-year non-doctorate granting	153	120	78.4	24	15.7	9	5.9
Private not-for-profit 4-year doctorate granting	156	119	76.3	32	20.5	5	3.2
Private for-profit Less than 2-year	67	45	67.2	16	23.9	6	9.0
Private for-profit 2-year or more	48	34	70.8	14	29.2	0	0.0

[1] Institution classifications for this table were verified by the participating institutions.

[2] This choice was made by the Institutional Coordinator prior to any attempts at record abstraction.

[3] The final method is the procedure through which record abstraction was completed at the institution; the original method may have been used to obtain some data.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

4.2.4 Timeliness of Record Abstraction

CADE systems were prepared on an institution-by-institution basis as enrollment lists were received, samples selected, and matching to the Central Processing System was completed. Web-CADE institutions began receiving notification that their systems had been initialized on March 23, 2000, with 59 institutions being provided Web-CADE passwords on that date. The first set of field-CADE data collectors was trained April 6–10, 2000, and began record abstraction activities later in April. Initialization of CADE systems continued through December 2000.

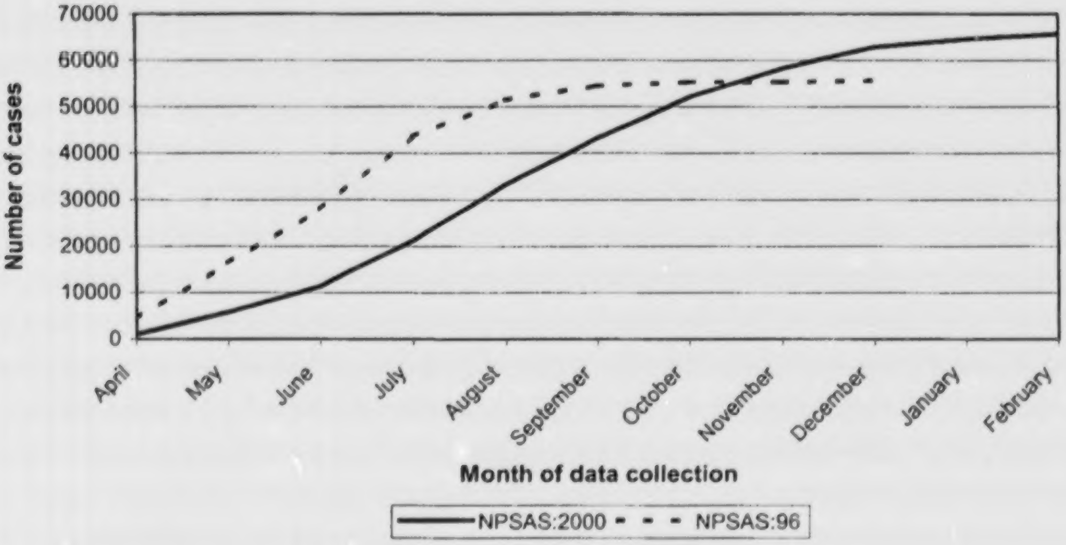
As can be seen below in figure 4-2, the flow of NPSAS:2000 CADE data from the institutions lagged behind the experience of NPSAS:96, even though the two data collections began on roughly the same calendar basis. As was indicated previously, enrollment lists were received over a more extended timeframe in NPSAS:2000, and the sequential nature of NPSAS data collection operations resulted in somewhat slower than anticipated flow of CADE data.

There are two primary explanations as to the observed difference between NPSAS:96 and NPSAS:2000 CADE flow. First, NPSAS:2000 served as the base year study for a cohort of baccalaureate recipients, whereas NPSAS:96 was the base year for a cohort of first-time beginning students. As described above in section 4.1, in NPSAS:2000 many of the 4-year institutions were unable or unwilling to provide a list of baccalaureate recipients until conclusion of all graduation activities, so that the enrollment lists from these institutions were not received until much later than in NPSAS:96. In both NPSAS:96 and NPSAS:2000, a large percentage of the study eligible students (71.4 percent in NPSAS:96 and 73.0 percent in NPSAS:2000) were sampled from 4-year institutions. NPSAS:96, however, did not require the identification of graduating seniors. Hence, the lists could be sent much earlier in the 1996 study.

Second, the NPSAS:2000 specifications as to which students to include on the enrollment lists differed from those used in NPSAS:96. Whereas in NPSAS:96 institutions were instructed to identify students enrolled in *terms beginning* between May 1 and April 30, in NPSAS:2000 they were asked to identify students enrolled *at any time* between July 1 and June 30. The impact of this procedural modification resulted in many institutions, especially those on a traditional semester or trimester academic calendar, needing to wait until the first summer school session had begun (typically in May or June) in order to accurately prepare the enrollment list. The same types of institutions, for NPSAS:96, were able to prepare enrollment lists shortly after the beginning of the spring term (typically in January or February).

The impact of the two above-mentioned factors was anticipated, and efforts were made to mitigate the resulting delays. First, unlike NPSAS:96, the NPSAS:2000 CADE systems were configured such that student-level data could be transmitted to RTI once the student-level case was complete. This differed from procedures used in NPSAS:96, in which the institutions were instructed to wait until all student data had been abstracted and entered before delivering these data to RTI. This improvement did result in CADE cases arriving on a more regular flow (as opposed to clusters of cases arriving in institution files) but did not dramatically shift the flow pattern being driven by the enrollment list receipt.

Figure 4-2.—Cumulative student flow of NPSAS:2000 CADE relative to NPSAS:96



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The second action, taken late in the data collection period, to mitigate the delayed flow of CADE data was to break the linkage between CADE and CATI steps. That is, cases for which a CPS match had been obtained (and therefore a student phone number was available) were loaded into CATI before the student CADE data had been obtained. While this effort, implemented late in the data collection schedule, proved relatively successful in expediting a small number of CATI interviews, it too was insufficient for overcoming the overall impact of a drawn-out enrollment list receipt process.

4.3 CATI Tracing and Interviewing

4.3.1 Time Lines of Student Interviewing

As mentioned previously, the study design of NPSAS:2000 called for both the student sampling from enrollment lists and student records abstraction to take place before student interviewing began. This design affected the flow of cases into CATI. The first CATI input files, including preloaded data from CADE, were created and loaded May 22, 2000. Loading of data into the CATI system continued on a flow basis through February 11, 2001. CATI data collection continued through February 28, 2001. The lengthy duration of the CATI survey was principally due to delays in enrollment list acquisition (and, therefore, student sample identification), which in turn delayed CPS matching and CADE data collection, and thus, the flow of cases into CATI. Additionally, a fire destroying one of the two RTI call centers occurred in early January 2001, necessitating the temporary closure of that facility and, ultimately, the extension of data collection by almost 6 weeks.

As shown in table 4-11, the CATI case flow also affected the success rates achieved. Among the total sample, approximately 75 percent of the cases loaded into CATI between May and July 2000 were located and interviewed. This percentage declined over time to 59 percent in January 2001 and 44 percent in February 2001, the last month of data collection. Similar patterns occurred for each student type as well.

Table 4-11.—NPSAS: 2000 response rates, by student type and month in which the case was loaded into CATI

Month loaded into CATI[*]	Total[1]		B&B students[2]		Other undergraduate students[2]		Graduate/first-professional students[2]	
	Total number	Percent complete[3]	Total number	Percent complete[3]	Total number	Percent complete[3]	Total number	Percent complete[3]
Total	62,965	70.7	14,028	74.2	36,812	68.3	12,125	73.9
May 2000	3,867	75.9	969	79.0	2,433	73.6	465	81.7
June 2000	6,326	75.5	1,357	78.8	3,971	73.8	998	77.9
July 2000	9,804	74.9	2,332	77.0	5,902	72.7	1,570	80.3
August 2000	11,004	72.4	2,580	74.3	6,606	70.5	1,818	76.5
September 2000	9,482	71.7	2,296	75.0	5,211	69.2	1,975	74.6
October 2000	8,413	70.0	1,756	74.9	4,729	65.6	1,928	76.7
November 2000	8,920	65.1	1,719	71.1	5,291	61.8	1,910	69.0
December 2000	3,221	60.0	624	61.2	1,791	56.1	806	68.0
January 2001	1,274	58.5	263	56.7	594	57.7	417	60.7
February 2001	654	44.2	132	50.0	284	51.4	238	32.4

[1] Statistics exclude 5,800 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 875 sample members who were either unavailable for the duration of the survey, out of the country, or institutionalized; and about 650 cases that were sampled but never worked in CATI.

[2] Institution and student classifications were verified by participating institutions to correct classification errors on the sampling frame.

[3] Percentages are based on the "total number" of completed interviews in the column under consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

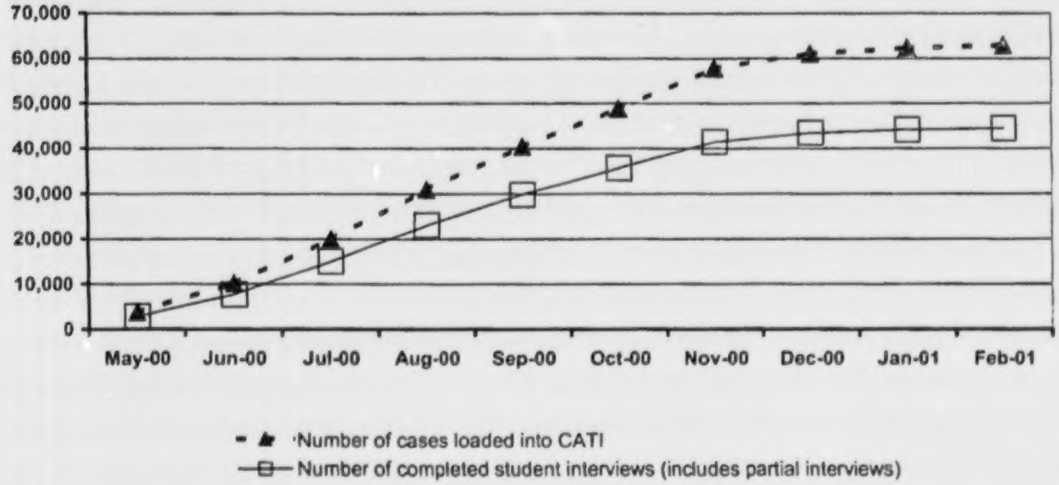
Figure 4-3 illustrates this relationship graphically. As can be seen, the interview completion rate decreased (i.e., the slope of the cumulative line flattens) during the later portions of the study, as efforts were limited to locating and interviewing the most difficult cases.

4.3.2 CATI Tracing and Locating Operations

The NPSAS:2000 student interview data collection included several tracing procedures as well as the use of a "locating" module in the CATI system. Cases for which preloaded CATI locating information failed to result in contact with the sample member required intensive tracing efforts. These intensive tracing activities were as follows.

- Cases with valid addresses (but no telephone number) were sent to Fast Data for telephone number updates, with new information returned to CATI for further follow-up.
- Cases from FastData without additional information were assigned to RTI's Tracing Operations Unit (TOPS) for intensive tracing.
- Cases without valid mailing addresses or telephone numbers were assigned to TOPS for intensive tracing.

Figure 4-3.—Cumulative cases loaded and completed interviews, by month of CATI data collection



SOURCE: U.S. Department of Education, National Center for Education Statistics,National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

- Cases still unlocatable after intensive centralized tracing were assigned to field interviewers (if the last known address was in a geographic "cluster" or location staffed by a field interviewer) or to a field locator (if the last known address was not in a geographic "cluster").

As shown in table 4-12, nearly one-third of the potentially eligible sample members required some form of intensive tracing (about 20,600 of 63,000 cases). Of the instances in which intensive tracing methods were used, 51 percent of the cases were located, and about 84 percent of the cases located completed the interview.

Table 4-12.—NPSAS:2000 contact and interview rates, by intensive tracing efforts

Tracing status		Located		Interviewed, when located	
	Total respondents[1]	Number	Percent	Number	Percent
Total	62,965	51,010	81.0	44,491	87.2
No intensive tracing required	42,407	40,468	95.4	35,589	87.9
Intensive tracing required	20,558	10,542	51.3	8,902	84.4

[1] Statistics exclude 5,800 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 870 sample members who were either unavailable for the duration of the survey, out of the country, or institutionalized; and about 640 cases that were sampled but never worked in CATI.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

A breakout of the cases requiring intensive tracing, by institution type and student type, is shown in table 4-13.

Table 4-13.—NPSAS:2000 students requiring intensive tracing procedures, by institution and student type

Institution /student type[1]	Total[2]	Cases requiring intensive tracing efforts	
		Number	Percent
Total	62,960	20,558	32.6
Institutional level			
Less-than-2-year	5,560	2,164	38.9
2-year	11,350	3,945	34.7
4-year non-doctorate-granting	17,090	5,204	30.5
4-year doctorate-granting	28,960	9,253	32.0
Institutional control			
Public	39,330	12,632	32.1
Private not-for-profit	17,340	5,517	31.8
Private for-profit	6,300	2,409	38.2
Level/control combined			
Public less-than-2-year	1,150	405	35.2
Public 2-year	9,050	3,097	34.2
Public 4-year non-doctorate-granting	9,040	2,767	30.6
Public 4-year doctorate-granting	20,090	6,363	31.7
Private not-for-profit 2-year or less	1,530	591	38.6
Private not-for-profit 4-year non-doctorate-granting	7,290	2,179	29.9
Private not-for-profit 4-year doctorate-granting	8,520	2,747	32.2
Private for-profit less-than-2-year	3,940	1,547	39.3
Private for-profit 2-year or more	2,360	862	36.5
Student type			
Undergraduates	50,840	16,784	33.0
B&B	14,030	4,822	34.4
Other undergraduates	36,810	11,962	32.5
Graduate	10,090	3,391	33.6
First-professional	1,250	383	30.6

[1] Institution and student classifications were verified by participating institutions to correct classification errors on the sampling frame.

[2] Statistics exclude 5,761 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 868 sample members who were either unavailable for the duration of the survey, out of the country, or institutionalized; and 638 cases that were sampled but never worked in CATI.

NOTE: To protect confidentiality of data, some numbers were rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

For tracing hard-to-locate sample members, generally no single source of information is—by itself—adequate to achieve the level of locating required. Rather, a successful locating effort requires multiple sources of information. Table 4-14 provides an overview of the sources used during intensive, centralized tracing of the hard-to-reach NPSAS:2000 sample members. Note that although the table provides information on the number and percentage of sample members who were ultimately located when a particular source was used, most of the cases were located using multiple sources.

Table 4-14.—NPSAS:2000 contact rates, by tracing source

Tracing source	Intensive tracing		
		Contacted	
	Total	Number	Percent
Centralized tracing			
Consumer database search – Experian	13,833	6,373	46.1
Directory assistance	12,738	5,765	45.3
Consumer database search – Equifax	11,064	5,327	48.1
Database – address search	10,356	4,734	45.7
Consumer database search – FirstPursuit	6,820	3,279	48.1
Database – name search	6,356	2,634	41.4
Directory Assistance–Plus	4,068	1,822	44.8
Database – reverse phone lookup	4,416	2,049	46.4
Internet search	3,806	1,578	41.5
Database – neighbor search	528	264	50.0
Other collateral source	2,500	1,148	45.9
Field tracing:			
Field locators	1,248	458	36.7
Field interviewers	2,252	1,024	45.5

NOTE: Most cases were traced using multiple sources so row totals and percentages are not mutually exclusive.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Centralized tracing efforts in the Tracing Operations Unit focused primarily on consumer database searches (via Experian, Equifax, and FirstPursuit) coupled with follow-up using directory assistance (DA) and/or address database searches. This technique resulted in the location of 45–48 percent of the sample members processed by TOPS. For cases not located strictly through these means, TOPS turned to alternative tracing sources, such as name searches, reverse telephone lookups, Internet searches, and neighbor searches. Using these techniques, TOPS was able to locate 41 to 50 percent of the remaining intensive cases.

In terms of field tracing, field locators—i.e., field staff who were not trained to conduct interviews but were assigned cases not located in a geographic area staffed by a field interviewer—traced and located nearly 37 percent of the cases they were assigned. Field interviewers (operating in geographic clusters) located approximately 46 percent of the cases assigned to them.

4.3.3 Refusal Conversion Efforts

Refusal conversion procedures were used to gain cooperation from individuals who refused to participate when contacted by telephone interviewers. Refusals came not only from sample members, but also from spouses, housemates, parents, and other “gatekeepers,” who provided proxy refusals for the sample members. When either a sample member or a gatekeeper refused to participate in the locating or interviewing effort, the case was referred to a specially trained refusal conversion specialist in the Telephone Survey Department. There were 16,179 initial refusals among the student sample (or 24 percent of the initially fielded sample of 66,339). Of these, 11,628 refusals were by sample members and 4,551 were by other contacted individuals (see table 4-15). In all, 54.5 percent of the initial refusals (by sample member or proxy) were successfully converted into completed interviews. The conversion rate among refusing sample members by source of refusal was nearly identical.

Table 4-15.—NPSAS:2000 conversion of initial refusals, given initial refusal

Sources of refusal	Number of initial refusals	Completed, given initial refusal	
		Number	Percent
Any contact	16,179	8,812	54.5
Sample member	11,628	6,279	54.0
Other individual	4,551	2,533	55.7

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

4.3.4 Number of Calls

As shown in table 4-16, telephone interviewers made 1,033,212 calls to students during the NPSAS:2000 full-scale study, with an average of about 16 calls per sample member.[2] Although not reflected in this table, the average was lower for completed cases only (mean call attempts = 12.2); 62 percent of the completed telephone interviews were completed with 10 or fewer calls, 29 percent required 11 to 29 calls, and 9 percent of the completed cases required 30 or more call attempts. Of the total number of calls made, approximately one in five (23 percent) reached an actual person, 44 percent reached a telephone answering machine, and 33 percent were other noncontacts (busy, ring/no-answer, fax line, pager, etc.).

4.3.5 Answering Machines, Messages, and Call-Ins

Answering machines and other call screening technologies (such as caller-ID, call-blocking, and privacy managers) are an increasing problem for all studies conducted by telephone. Regardless of whether the devices are used to screen unwanted calls or to facilitate "on the go" lifestyles, these devices pose an obstacle to contacting sample members and completing interviews. While it was not possible for interviewers to know if they had reached a phone number that had caller-ID, the number and percentage of times interviewers reached an answering machine was tracked. In all, an answering machine was reached on 458,000 of the 1,033,000 calls made (or 44 percent of the time). Answering machines are not, however, insurmountable barriers. Table 4-17 provides the locate and interview (given locate) rates for hard-to-reach cases. There was some variance in the locate rates based on whether or not an answering machine was reached. Interestingly, those cases for which no answering machine was reached proved to be the most difficult to contact, with just under 72 percent of the cases being contacted. This percentage went up (to 86 percent) for cases in which an answering machine was reached on fewer than half the call attempts. The locate rate decreased again (to 82 percent), however, for cases in which an answering machine was reached on 50 percent of more of the cases.

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[2] These figures were captured by the study's computerized receipt control system and are based on calls made by telephone interviewers. They exclude calls made by TOPS, field interviewers, and field locators in the course of attempting to locate sample members.

Table 4-16.—Number and result of calls made to sample members by type of institution and type of student

Category	CATI sample cases	Total calls to sample cases	Calls per case	Reached someone		Did not reach anyone			
						Answering machine		Other non-contact	
				Number	Percent	Number	Percent	Number	Percent
Total	66,339	1,033,212	15.6	233,326	22.6	458,241	44.4	341,645	33.1
Institutional level									
Less than 2-year	5,929	90,738	15.3	21,531	23.7	32,705	36.0	36,502	40.2
2-year	12,444	198,167	15.9	49,336	24.9	82,048	41.4	66,783	33.7
4-year, non-doctorate-granting	17,790	269,370	15.1	64,097	23.8	118,355	43.9	86,918	32.3
4-year, doctorate-granting	30,176	474,937	15.7	98,362	20.7	225,133	47.4	151,442	31.9
Institutional control									
Public	41,635	654,946	15.7	149,822	22.9	291,186	44.5	213,938	32.7
Private not-for-profit	18,113	273,119	15.1	59,838	21.9	126,265	46.2	87,016	31.9
Private for-profit	6,591	105,147	16.0	23,666	22.5	40,790	38.8	40,691	38.7
Institutional sector									
Public, less-than-2-year	1,263	18,872	14.9	4,734	25.1	7,115	37.7	7,023	37.2
Public 2-year	10,021	157,405	15.7	40,116	25.5	66,111	42.0	51,178	32.5
Public 4-year, non-doctorate-granting	9,451	146,418	15.5	35,441	24.2	63,505	43.4	47,472	32.4
Public 4-year, doctorate-granting	20,900	332,251	15.9	69,531	20.9	154,455	46.5	108,265	32.6
Private not-for-profit, 2 year or less	1,648	24,727	15.0	6,205	25.1	8,432	34.1	10,090	40.8
Private 4-year, non-doctorate-granting	7,557	110,222	14.6	25,866	23.5	49,144	44.6	35,212	32.0
Private not-for-profit, 4-year, doctorate-granting	8,908	138,170	15.5	27,767	20.1	68,689	49.7	41,714	30.2
Private for-profit, less-than-two-year	4,131	65,312	15.8	15,070	23.1	23,482	36.0	26,760	41.0
Private for-profit, 2-year or more	2,460	39,835	16.2	8,596	21.6	17,308	43.5	13,931	35.0
Student type[1]									
Undergraduate	53,721	857,516	16.0	198,676	23.2	366,945	42.8	291,895	34.0
Baccalaureate recipient	14,625	235,851	16.1	49,380	20.9	109,267	46.3	77,204	32.7
Other undergraduate	39,096	621,665	15.9	149,296	24.0	257,678	41.5	214,691	34.5
Graduate	11,330	153,181	13.5	30,477	19.9	79,380	51.8	43,324	28.3
First-professional	1,288	22,515	17.5	4,173	18.5	11,916	52.9	6,426	28.5

[1] Institution and student classifications were verified by participating institutions to correct classification errors on the sampling frame.

NOTE: Statistics based on 66,339 cases loaded and worked in CATI, and restricted to calls made within the two CATI facilities (does not include calls made by the Tracing Operation Unit, field interviewers, or field locators). Percentages are based on total calls for row under consideration. Some rows may not add to 100 percent due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-17.—NPSAS:2000 locate and interview rates for hard-to-reach sample members, by percentage of calls in which an answering machine was reached

Extent of call attempts resulting in answering machine	Total hard-to-reach sample members[1]	Located		Interviewed, when located	
		Number	Percent	Number	Percent
All	28,195	23,271	82.5	18,202	78.2
None	3,444	2,475	71.9	2,017	81.5
Less than half	12,075	10,402	86.1	8,130	78.2
Half or more	12,676	10,394	82.0	8,055	77.5

[1] Calculations include only cases with 10 or more call attempts (i.e., those considered to be hard to reach).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Once the student was reached, however, there was less variation in terms of the percentage who completed the interview. Among the instances in which no answering machine was reached, 81.5 percent completed the interview. This compares with 78 percent for cases in which an answering machine was reached at least once.

Not surprisingly, the higher the percentage of calls in which an answering machine was reached, the greater the average number of call attempts required to complete the interview. Looking only at completed cases among this hard-to-reach set, an average of 18.4 calls was required to obtain a completed interview when no answering machine was encountered in the course of attempting to contact the sample member.[3] In contrast, cases in which some—but less than 50 percent—of the call attempts reached an answering machine, took an average of 27.3 call attempts to complete the interview. Finally, among cases in which an answering machine was reached on more than half of the call attempts, it took on average 34.8 call attempts to complete an interview. Those who used answering machines were "reachable"; however, it took considerable persistence and resources (in the form of repeated call attempts) to reach these individuals.

Answering machines can also serve as a vehicle for making contact with a difficult-to-reach sample member. Messages left on answering machines are the functional equivalent of oral electronic lead letters, alerting a sample member to an impending call from an interviewer. For NPSAS:2000, a message was left the first and fourth time an answering machine was encountered at a particular telephone number. The message served two purposes: (1) to notify sample members that they had been selected for a research study and (implicitly) that they would be recontacted in the near future, and (2) to encourage sample members to call in to complete the interview.

As shown in table 4-18, a sizable portion of the sample initiated contact with RTI by calling the toll-free number. A total of 14,206 calls were received on the toll-free number established for the study. Among these, 82 percent (11,648 cases) completed the interview.[4] Among those who did not complete the interview when they called in, calls were a relatively even mix of refusals by the sample member, contact persons calling to provide new locating information for the sample member, or contacted individuals calling to say they did not know the sample member or did not know where to contact him or her.

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[3] Data on call attempts were captred by the study's computerized control system.

[4] This percentage assumes that all incoming calls were resolved, resulting in either a completed interview or a refusal to participate by the sample member. Data were captured by the study's computerized receipt control system.

Table 4-18.—NPSAS:2000 interview results, by call-in to toll-free number from message on answering machine

Message left on answering machine	Total cases[1]	Call-ins to toll-free number[2]	
		Number	Percent
Total	62,965	14,206	22.6
No message	19,723	2,693	13.7
Message left	43,242	11,513	26.6

[1] Statistics exclude 5,800 NPSAS-ineligible sample members (as determined during record extraction or in CATI); 875 sample members who were either unavailable for the duration of the survey, out of the country, or institutionalized; and about 650 cases that were sampled but never worked in CATI.

[2] Of the 14,206 call-ins, 82 percent (11,648 cases) completed the interview. This percentage assumes that all incoming calls were resolved, resulting in either a completed interview or a refusal to participate by the sample member. Data were captured by the study's computerized receipt control system.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

We also examined differences in call-in and completion patterns among cases in which the answering machine message was and was not left.[5] The call-in rate was much higher among cases in which a message was left on an answering machine (27 percent) compared to cases in which no message was left (14 percent). Clearly, messages left on answering machines were successful in generating call-ins to the CATI facility for over one-quarter of the cases for which this approach was used.

4.3.6 Use of Incentives for Sample Members

A random assignment experiment conducted as part of the NPSAS:2000 field test demonstrated that offering financial incentives to sample members to encourage their participation in the study was a cost-effective means of reducing nonresponse. Consequently, incentives were used during the NPSAS:2000 full-scale study to reduce nonresponse primarily among two groups: (1) those who initially refused to participate in the study, and (2) those for whom there was a valid mailing address for the sample member, but no valid telephone number. Sample members selected to receive an incentive were sent a personalized letter delivered by express overnight service. Enclosed with the letter was a $5 bill and instructions for completing the interview by calling a toll-free telephone number. After successfully completing the NPSAS:2000 interview, whether by call-in to the toll-free number or through a call initiated by a telephone interviewer, each respondent received an additional payment of $15 by check.

During the course of the study, two additional incentive groups were defined. The first involved nonrefusing cases with 20 or more call attempts. These sample members may have been difficult to reach because they were hard to catch at home; or they may have been "passive refusals," persons who did not refuse outright, but rather used call-screening devices or repeatedly delayed doing the interview. These "high call count" cases were not offered an repeatedly delayed doing the interview. These "high call count" cases were not offered an incentive by mail; rather, a message was left on their answering machine informing them that if they called in to conduct the interview, they would be paid $20 for their participation. The cost savings from not mailing the offer (with $5 enclosed) allowed the incentive to be offered to a larger number of sample members.

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[5] In addition to messages left on answering machines, sample members could have received the toll-free number in other ways, including the initial lead letter, incentive mailings, and messages left with parents or other contacts.

Finally, during the last 4 weeks of production (beginning February 1, 2001), a $20 incentive was offered to all other nonrespondents who did not meet the previous conditions set for receiving an incentive. This "end of study" group was offered the incentive via answering machine and messages left with contacts. Like the previous group, to save resources they were not sent a mailing informing them of the incentive.

Table 4-19 provides an overview of the number of cases within each group offered an incentive and the percentage of cases completed given the offer of an incentive. A total of about 23,100 sample members were offered some form of incentive to participate. Interviews were completed with about half (11,500) of these cases. Success rates varied considerably by the type of nonrespondent. Among those who initially refused (either by telephone or by mail) to take part in the study, 59 percent (4,700 of 8,000 cases) completed the survey. Similar success was achieved for the high call count group, who were offered an incentive via an answering machine message. Interviews were completed with about 3,700 of the 6,400 cases in this group (57 percent). The incentive was less effective among those with a valid mailing address but no telephone number and those offered an incentive at the end of the study. Interviews were completed with 35 percent of the cases with no valid telephone number and with 36 percent of the cases offered an incentive during the last 4 weeks of the study.

Table 4-19.—NPSAS:2000 response rates among incentive cases

Incentive group	Total number	Complete, given incentive	
		Number	Percent
Total receiving incentive	23,061	11,493	49.8
Incentive after refusal	7,963	4,730	59.4
Valid address, no telephone number	2,705	944	34.9
Incentive offered via answering machine	6,443	3,680	57.1
End-of-study incentive offer	5,950	2,139	35.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

4.4 Length of Student Interview

During CATI/CAPI instrument development, project staff embedded time stamps at the start and end of the interview, as well as the beginning and end of each interview screen, which could include up to eight related items. The time stamps measured the elapsed time to complete each segment of the interview, and enabled project staff to monitor the time required to complete specific interview items, the online coding programs, individual sections of the interview, and the entire interview itself.

The time, in minutes, needed to conduct a student interview is shown, by interview section and student type, in table 4-20. Sections are listed in the table in the order in which they were presented. To use the most timing data available, results for each section of the interview required to complete the interview among all students who completed the sections that applied to them. Aside from the fact that section G (locating) applied only to B&B sample members, the bulk of the differences in numbers of cases contributing to the timing results over sections reflects "breakoff" interviews (which may have occurred with or without a scheduled call-back to complete the interview).

Average administration time to complete the student interview was 23.2 minutes for all students, 28.8 minutes for the B&B cohort members (i.e., verified B&Bs), 20.9 minutes for other undergraduates and 23.2 minutes for graduate/first-professional students. The additional time required for the B&B cohort is principally attributable to section E (which contained a number of questions that were only administered to such students) and the time required to obtain the much more comprehensive section G locating information for the longitudinal study sample.

Table 4-20.—Average minutes to complete NPSAS:2000 student interview, by interview section and student type

CATI section	All students		B&B students		Other undergraduate students		Graduate/first-professional students	
	Number	Minutes	Number	Minutes	Number	Minutes	Number	Minutes
Total	39,610	23.2	9,270	28.8	22,180	20.9	8,160	23.2
Section A – Enrollment/ eligibility	40,310	5.0	9,410	4.5	22,640	4.8	8,270	6.3
Section B – Student background	40,020	4.7	9,360	4.6	22,450	4.9	8,210	4.6
Section C – Financial aid	39,880	3.7	9,340	3.6	22,350	3.4	8,190	4.3
Section D – Employment/ income	39,620	6.7	9,290	6.9	22,180	6.6	8,160	6.8
Section E – Education experiences	39,610	2.6	9,280	5.3	22,180	1.7	8,160	1.8
Section F – Disability	39,600	0.7	9,280	0.7	22,160	0.8	8,150	0.7
Section G – Locating	9,270	4.5	9,270	4.5	†	†	†	†

†Not applicable.

NOTE: Section times are based on the number of respondents completing each section, excluding those who completed abbreviated interviews. A section was considered complete if the amount of time to complete the section was greater than zero and the section completion flag was set. Section outliers were removed from the timing analysis and numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Interview administration time, however, reflects only a small fraction of the time required to obtain a completed interview. Interviewers spent additional time in locating sample members, scheduling call-backs, attempting refusal conversion, and carrying out other related activities. This time was spent not only on cases that were ultimately interviewed but also on cases for which no interviews were obtained. The average locator/interviewer time requirement for each completed interview was about 2.0 hours.

4.5 Identifying Students Eligible for Baccalaureate and Beyond

As noted earlier, NPSAS:2000 serves as the base year of the Baccalaureate and Beyond longitudinal study. So that baccalaureate students could be identified, institutions were asked to send lists of students who received or were candidates to receive a baccalaureate degree at any time between July 1, 1999, and June 30, 2000. Since the actual list of bachelor's degree recipients was not final at the time these lists were prepared, some sample students identified by the institution as baccalaureate candidates were determined during the CATI interview not to be baccalaureate recipients (false positives). Likewise, some sample students not identified by the baccalaureate recipients (false positives). Likewise, some sample students not identified by the institution as baccalaureate candidates were determined during the CATI interview to have actually received baccalaureate degrees (false negatives) during the specified timeframe.

Table 4-21 shows that of the 11,300 students who were sampled as baccalaureate candidates and completed a CATI interview, 1,500 were not baccalaureate recipients, which is a false-positive rate of 13 percent. Conversely, of the 24,600 students who were sampled as other undergraduates and completed a CATI interview, about 500 were baccalaureate recipients, which is a false-negative rate of 2 percent. Also, of the 8,500 students who were sampled as graduates/first-professionals and completed a CATI interview, about 80 were determined to be baccalaureate recipients in 1999-2000, which is a false-negative rate of 1.0 percent. Overall, the false-negative rate was about 2 percent.

Table 4-21.—B&B determination, by student type

Stratum	Students interviewed[1]	Confirmed B&B eligibility	
		Number	Percent
Total sample	44,500	10,400	23
Baccalaureate	11,300	9,800	87
Other undergraduate	24,620	490	2
Graduate/first-professional	8,530	80	1

[1] Includes all eligible sample members who completed the student interview, since confirmation of B&B eligibility status required contact with the sample members.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999-2000 (NPSAS:2000).

4.6 Quality of NPSAS Data

4.6.1 CATI Nonresponse Bias Analysis

Unit nonresponse causes bias in survey estimates when the outcomes of respondents and nonrespondents are different. A bias analysis was conducted to determine whether any variables were significantly biased due to CATI nonresponse. The distributions of several variables using the design-based, adjusted weights for study respondents (study weights) were found to be biased before CATI nonresponse adjustments, but the CATI nonresponse and poststratification procedures (described subsequently in Chapter 6) greatly reduced the bias for these variables. When the weighting was completed, no variables available for most respondents and nonrespondents had significant bias for all students combined.

CATI respondents and nonrespondents were characterized by comparing the weighted percentage of CATI respondents with the weighted percentage of CATI nonrespondents for each category of important characteristics known for both respondents and nonrespondents. T-tests were performed to determine whether the difference between respondents and nonrespondents was significant at the 5 percent level.

Table 4-22 compares demographic characteristics of CATI respondents and nonrespondents for all students combined and also shows the full sample distribution. This table shows that the distributions of demographic characteristics—such as age, race, sex, student type, and receipt of aid—were significantly different for CATI respondents and nonrespondents. Some of the statistically significant differences are not large differences, but aid recipients were clearly more likely to be respondents. When the differences between CATI respondents and nonrespondents are significant, the bias is also significant, as described below.

The nonresponse bias for variables known for both respondents and nonrespondents was also estimated. The bias in an estimated mean based on CATI respondents, $\overline{y}_R$, was the difference between this mean and the target parameter, π, that we were trying to estimate—i.e., the mean that we would estimate if we conducted a complete census of the target population. This bias can be expressed as follows:

$$B(\overline{y}_R) = \overline{y}_r - \pi .$$

The estimated mean based on CATI nonrespondents, $\overline{y}_{NR}$, can be computed if we have data for the particular variable for most of the nonrespondents. An estimate of π can be derived as follows:

$$\hat{\pi} = (1-\eta)\overline{y}_R + \eta\overline{y}_{NR} ,$$

where η is the weighted unit nonresponse rate. Therefore, the bias can be estimated as follows:

$$\hat{B}(\overline{y}_R) = \overline{y}_R - \hat{\pi} ,$$

or equivalently

$$\hat{B}(\overline{y}_R) = \eta(\overline{y}_R - \overline{y}_{NR}) .$$

This formula shows that the estimate of the nonresponse bias is the difference between the mean for CATI respondents and nonrespondents multiplied by the weighted nonresponse rate. We then computed the variance of the bias using Taylor Series estimation in RTI's software package SUDAAN.

The first set of columns in table 4-23 shows the estimated bias before CATI nonresponse adjustment and imputation for the variables available for most responding and nonresponding students. The respondent and nonrespondent counts and means do not match those in table 4-22 because table 4-22 included imputed data and table 4-23 did not include imputed data for the before-CATI nonresponse adjustment estimates. Also, no categories for missing data were included in table 4-23. A few variables have no before-CATI nonresponse adjustment results because they had high levels of missing data. T-tests were used to test each level of the variables for significance of the bias at the 0.05/(c-1) significance level, where c is the number of categories within the primary variable. The bias of several variables, such as sex, student type, and receipt of aid is significant, although the bias is small for some of these variables.

Table 4-22. — Comparison of NPSAS:2000 CATI respondents and nonrespondents

Variable	CATI respondents		CATI nonrespondents		Full sample	
	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]
Age[2]						
19 or younger	6,480	19.5	2,560	19.0	9,030	19.3
20 to 23	16,140	31.2	6,290	32.2	22,420	31.5
24 to 29	9,380	19.3	4,140	21.8*	13,510	20.1
30 to 39	6,910	16.1	2,540	14.9*	9,440	15.8
40 or older	5,600	13.9	1,760	12.1*	7,360	13.4
Race[3]						
White	4,980	77.7	12,840	74.2*	47,820	76.7
Black or African American	4,960	12.1	2,290	13.5	7,250	12.5
Asian	2,540	5.3	1,540	8.6*	4,080	6.3
American Indian or Alaska Native	280	0.7	180	1.2*	460	0.9
Native Hawaiian or Pacific Islander	140	0.4	150	1.0*	290	0.5
More than one race	1,600	3.8	280	1.6*	1,880	3.2
Ethnicity[3]						
Not Hispanic	40,010	89.1	14,960	87.0*	54,960	88.5
Hispanic	4,490	10.9	2,320	13.0*	6,810	11.5
Sex[3]						
Male	18,230	42.2	7,800	46.9*	26,030	43.6
Female	26,260	57.8	9,480	53.1*	35,740	56.4
Institution level[4]						
4-year	33,690	57.9	11,770	51.1*	45,460	55.9
2-year	7,450	39.8	3,720	46.2*	11,170	41.7
Less-than-2-year	3,360	2.3	1,790	2.8	5,140	2.4
Institutional control[4]						
Public	28,060	75.9	10,610	77.2	38,680	76.3
Private not-for-profit	12,540	19.6	4,580	17.7*	17,110	19.0
Private for-profit	3,890	4.5	2,090	5.1	5,980	4.7
Institutional region[4]						
New England	2,540	5.2	1,040	5.4	3,580	5.2
Mid East	7,330	15.2	2,730	14.3	10,060	14.9
Great Lakes	7,360	15.8	2,640	14.7	10,000	15.5
Plains	3,520	7.2	1,150	6.0*	4,660	6.9
Southeast	10,010	23.0	3,440	19.4*	13,450	21.9
Southwest	4,650	11.1	2,140	13.7*	6,780	11.9
Rocky Mountain	1,850	3.9	610	3.7	2,460	3.9
Far West	6,440	17.4	3,080	21.1*	9,520	18.5
Outlying area	800	1.3	460	1.7	1,260	1.4
Student type[4] (sampled)						
Baccalaureate	11,340	6.9	3,700	5.7*	15,040	6.5
Other undergraduate	24,620	78.8	10,890	83.3*	35,510	80.1
Graduate	7,610	12.4	2,400	9.5*	10,010	11.6
First-professional	920	1.9	280	1.5*	1,200	1.8
Student type[3] (CADE)						
Undergraduate	35,540	85.2	14,400	88.5*	49,930	86.2
Graduate	8,040	13.0	2,600	10.1*	10,640	12.2
First-professional	920	1.8	280	1.4*	1,200	1.7
Fall enrollment status[3]						
Not enrolled	7,020	18.2	3,520	22.7*	10,540	19.5
Full-time	27,730	53.7	8,990	42.7*	36,720	50.5
Half-time	5,710	15.8	2,820	18.8*	8,530	16.7
Less than half-time	4,040	12.3	1,950	15.9*	5,980	13.3

Table 4-22. — Comparison of NPSAS:2000 CATI respondents and nonrespondents—Continued

Variable	CATI respondents		CATI nonrespondents		Full sample	
	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]
Receipt of any aid[3]						
No	18,240	48.4	8,320	56.5•	26,560	50.8
Yes		51.6	8,950	43.5•	35,200	49.3
Receipt of federal aid[3]						
No	24,140	60.4	10,320	66.9•	34,460	62.3
Yes	20,350	39.6	6,960	33.1•	27,300	37.7
Receipt of state aid[3]						
No	37,920	85.2	15,230	87.8•	53,140	85.9
Yes	6,580	14.8	2,050	12.2•	8,630	14.1
Receipt of institutional aid[3]						
No	34,040	82.8	14,070	86.8•	48,110	84
Yes	10,450	17.2	3,210	13.2•	13,660	16
Applied for federal aid[6]	21,000	51.9	9,270	59.1•	30,270	54
No	23,500	48.2	8,010	40.9•	31,500	46
Yes						
Receipt of Pell Grant[7]						
No	34,760	79.9	13,460	81.7•	48,220	80.4
Yes	9,730	20.1	3,820	18.3•	13,550	19.6
Pell grant amount received[7]						
Less than or equal to $1,183	2,480	29.5	910	28.9	3,390	29.3
$1,184 to $1,953	2,400	23.2	1,020	24.5	3,420	23.6
Greater than $1,953	4,860	47.3	1,880	46.6	6,740	47.1
Receipt of Stafford loan[7]						
No	28,310	70.5	12,050	76.3•	40,360	72.2
Yes	16,180	29.5	5,230	23.7•	21,410	27.8
Stafford Loan amount received[7]						
Undergraduate						
Less than or equal to $2,625	3,710	32.7	1,340	33.1	5,060	32.8
$2,626 to $4,425	3,000	22.4	1,020	23.2	4,020	22.6
$4,426 to $5,500	3,860	22.2	1,080	20.0•	4,940	21.7
Greater than $5,500	3,080	22.8	1,060	23.7	4,140	23
Graduate/first-professional						
Less than or equal to $8,000	640	23.4	190	23.4	830	23.4
$8,001 to $12,521	620	23.3	180	23.7	800	23.4
$12,522 to $18,500	950	39.9	260	37.5	1,210	39.4
Greater than $18,500	320	13.4	110	15.5	430	13.9

[1] Using the final study weights and imputed data.

[2] Primary data sources are CADE and CPS.

[3] Primary data source is CADE.

[4] Primary data source is sampling frame.

[5] Primary data source is CATI control system.

[6] Primary data source is CPS.

[7] Primary data source is NSLDS.

•Difference between CATI respondents and nonrespondents is significant at the 0.05/(c-1) level, where c is the number of categories within the primary variable.

NOTE: To protect confidentiality, some numbers have been rounded. Some percentages may not sum to totals for a variable due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Weight adjustments are typically used to reduce bias due to unit nonresponse, and the results in tables 4-22 and 4-23 show that these adjustments are important for reducing the potential for nonresponse bias due to the differences between CATI respondents and nonrespondents. All variables that were thought to be predictive of CATI nonresponse and were missing for 5 percent or fewer of all study respondents, which included many of the variables identified in tables 4-22 and 4-23, were incorporated into the initial nonresponse models. Pell grant status and Stafford loan status were determined to be important predictors of federal aid receipt, so these variables were retained in all nonresponse models to preserve the population totals of these predictor variables. Additionally, institution type and student type were retained in all nonresponse models. The three stages of CATI nonresponse adjustment were

1. inability to locate the student,
2. refusal to be interviewed, and
3. other non-interview.

Weights were adjusted for the potential bias resulting from the three different types of CATI nonresponse. Poststratification to control totals adjusted for the potential for bias resulting from frame errors. The control totals included totals of study weights for seven variables with little missing data. All nonresponse adjustment and poststratification models were fit using RTI's generalized exponential models (GEMs),[6] which are similar to logistic models using bounds for adjustment factors. (Section 6.1 describes all the weighting details.)

The second set of columns in table 4-23 shows the estimated bias after weight adjustments for the variables available for most responding and nonresponding students. Four variables had zero bias after weight adjustments because we controlled to totals for these variables. The bias decreased after weight adjustments for all variables, except for some of the Pell Grant and Stafford Loan amount categories. The bias is not significant for these categories, and this increase occurred because we poststratified to Pell Grant and Stafford Loan amounts by sector (different categories than shown in the table). Although table 4-23 shows that some bias remained after all weight adjustments for a few variables, the magnitude of the residual bias shown in this table is small. The data available for these variables were insufficient to eliminate the bias altogether. Additional information on the nonresponse bias analysis will be described in a separate bias analysis report.[7]

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[6] R.E. Folsom, and A.C. Singh. "The Generalized Exponential Model for Sampling Weight Calibration for Extreme Values, Nonresponse, and Poststratification." *Proceedings of the Section on Survey Research Methods of the American Statistical Association*, 2000, 598–603.

[7] U.S. Department of Education, National Center for Education Statistics. National Postsecondary Student Aid Study, 1999-2000 (NPSAS:2000), CATI Nonresponse Bias Analysis Report, NCES 2002-03, by Peter H. Siegel, Roy W. Whitmore, Ruby E. Johnson, and Di Yu. Andrew G. Malizio, project officer. Washington, DC: 2000.

Table 4-23.—Nonresponse bias before CATI nonresponse adjustment and after weight adjustments for selected variables for all students

Description	Response	Before CATI nonresponse adjustment—unimputed data					After weight adjustments—imputed data		
		CATI unweighted respondents	CATI unweighted nonrespondents	CATI respondent mean, study weights	CATI nonrespondent mean, study weights	Estimated bias	Mean, CATI weights	Mean, study weights	Estimated bias
Student's age		44,430	17,000	27.4	27.0	0.1140[1]	27.3	27.2	0.0319
Student age groups	19 or younger	6,470	2,510	19.5	18.9	0.2000	19.4	19.3	0.0650
	20 to 23	16,120	6,160	31.2	32.0	-0.2000	31.3	31.5	-0.1470
	24 to 29	9,360	4,100	19.3	22.0	-0.8000[1]	20.1	20.1	0.0260
	30 to 39	6,890	2,500	16.1	14.9	0.4000[1]	15.6	15.8	-0.1820
	40 or older	5,590	1,730	13.9	12.2	0.5000[1]	13.6	13.4	0.2370
Has student received any type of aid?	Yes	26,250	8,950	51.6	43.5	2.3000[1]	49.3	49.3	0.0060
	No	18,240	8,320	48.4	56.5	-2.3000[1]	50.8	50.8	-0.0060
Did student attend institution in the fall?	Yes, full time	27,610	8,640	53.7	42.0	3.3000[1]	50.4	50.5	-0.0740
	Yes, half time	5,670	2,720	15.8	18.8	-0.8000	16.6	16.7	-0.0560
	Yes, less than half time	4,000	1,900	12.2	16.0	-1.1000[1]	13.3	13.3	-0.0290
	No	7,020	3,520	18.3	23.2	-1.4000[1]	19.7	19.5	0.1590
Attendance	Full time	‡	‡	‡	‡	‡	36.9	37.4	-0.4720[3]
	Half time	‡	‡	‡	‡	‡	16.5	16.5	0.0050
	Less than half time	‡	‡	‡	‡	‡	21.1	21.3	-0.2740
	Mixed	‡	‡	‡	‡	‡	25.5	24.8	0.7410[2]
Citizenship status	U.S. citizen	39,660	14,550	93.0	90.3	0.8000	92.2	92.1	0.0860
	Resident	1,680	880	4.4	5.1	-0.2000	4.6	4.6	-0.0120
	Visa	1,490	1,100	2.6	4.6	-0.6000[1]	3.2	3.3	-0.0740
CPS match	Yes	23,500	8,010	48.2	40.9	2.1000[1]	46.1	46.0	0.0560
	No	21,000	9,270	51.9	59.1	-2.1000[1]	53.9	54.0	-0.0560
Dependency status – two-level	Dependent	‡	‡	‡	‡	‡	44.3	42.8	1.5170[2,3]
	Independent	‡	‡	‡	‡	‡	55.7	57.2	-1.5170[2]
Dependency status – three-level	Dependent	‡	‡	‡	‡	‡	44.3	42.8	1.5170[2,3]
	Independent w/out dependents	‡	‡	‡	‡	‡	27.2	29.4	-2.2180[2]
	Independent w/dependents	‡	‡	‡	‡	‡	28.5	27.8	0.7010[2]
Enrollment total at the student's institution		44,490	17,280	16423.5	17296.3	-253.1520[1]	16673.9	16676.7	-2.7413
Enrollment categories[4]	Enrollment<=3,267	10,690	4,250	17.2	15.3	0.5000[1]	16.6	16.6	-0.0530
	3,267<enrollment<=11,096	11,570	4,180	28.1	26.6	0.5000	27.9	27.7	0.1890
	11,096<enrollment<24,120	11,060	4,490	28.8	30.4	-0.4600	29.1	29.3	-0.1320
	24,120<=enrollment	11,170	4,350	25.9	27.8	-0.5300[1]	26.5	26.5	-0.0040
Was the student enrolled in institution in the fall?	Yes, at a NPSAS institution	36,410	13,520	79.7	76.2	1.0270[1]	78.6	78.7	-0.1110
	Yes, not at a NPSAS institution	1,060	240	2.1	1.1	0.2820[1]	1.8	1.8	-0.0480
	No	7,020	3,520	18.2	22.7	-1.3100[1]	19.7	19.5	0.1590
Did the student receive any federal financial aid?	Yes	20,350	6,960	39.6	33.1	1.8930[1]	37.8	37.7	0.0280
	No	24,140	10,320	60.4	66.9	-1.8930[1]	62.2	62.3	-0.0280
Student's sex	Male	17,870	7,750	42.2	46.9	-1.3980[1]	43.5	43.6	-0.0310
	Female	25,780	9,420	57.8	53.1	1.3980[1]	56.5	56.4	0.0310

Table 4-23.— Nonresponse bias before CATI nonresponse adjustment and after weight adjustments for selected variables for all students —Continued

Description	Response	Before CATI nonresponse adjustment—unimputed data					After weight adjustments—imputed data		
		CATI unweighted respondents	CATI unweighted nonrespondents	CATI respondent mean, study weights	CATI nonrespondent mean, study weights	Estimated bias	Mean, CATI weights	Mean, study weights	Estimated bias
Did the student receive any Institution financial aid?	Yes	10,450	3,210	17.2	13.2	1.1610[1]	16.0	16.0	0.0200
	No	34,040	14,070	82.8	86.8	-1.1610[1]	84.0	84.0	-0.0200
Institution region	New England	2,540	1,040	5.2	5.4	-0.0520	5.3	5.2	0.0470
	Mid East	7,330	2,730	15.2	14.3	0.2610	14.9	14.9	-0.0030
	Great Lakes	7,360	2,640	15.8	14.7	0.2900	15.7	15.5	0.2500
	Plains	3,520	1,150	7.2	6.0	0.3500[1]	7.0	6.9	0.1590
	Southeast	10,010	3,440	23.0	19.4	1.0300[1]	22.1	21.9	0.1080
	Southwest	4,650	2,140	11.1	13.7	-0.7500[1]	11.9	11.9	0.0410
	Rocky Mountain	1,850	610	3.9	3.7	0.0600	3.9	3.9	0.0040
	Far West	6,440	3,080	17.4	21.1	-1.0700[1]	17.8	18.5	-0.6260[2]
	Outlying area	800	460	1.3	1.7	-0.1100	1.5	1.4	0.0190
Did the student receive any Pell grants?	Yes	9,730	3,820	20.1	18.3	0.5400[1]	19.6	19.6	0.0000
	No	34,760	13,460	79.9	81.7	-0.5400[1]	80.4	80.4	0.0000
Pell categories for all Pell recipients	Pell amount <= $1,183	2,480	910	29.5	28.9	0.1500	29.5	29.3	0.1880
	$1,183 < Pell amount <= $1,953	2,400	1,020	23.2	24.5	-0.3400	23.2	23.6	-0.3300
	$1,953 < Pell amount	4,860	1,880	47.3	46.6	0.1900[1]	47.2	47.1	0.1410
What was the amount of the Pell grant received?		9,730	3,820	1911.2	1909.3	0.5098	1910.7	1910.7	0.0000
Institution sector	Public, less-than-2-year	740	320	0.6	0.6	0.0000	0.6	0.6	0.0000
	Public, 2-year	5,950	2,980	37.6	43.8	-1.8000[1]	39.4	39.4	0.0000
	Public, 4-year, non-doctorate-granting	6,730	2,230	12.7	10.4	0.6800[1]	12.0	12.0	0.0000
	Public, 4-year, doctorate-granting	14,640	5,090	25.0	22.4	0.7500[1]	24.3	24.3	0.0000
	Private, not-for-profit 2-year or less	980	530	0.7	0.8	-0.0400	0.7	0.7	0.0000
	Private, not-for-profit 4-year, non-doctorate-granting	5,410	1,780	9.4	8.2	0.3600[1]	9.1	9.1	0.0000
	Private, not-for-profit 4-year, doctorate-granting	6,150	2,260	9.5	8.7	0.2400	9.3	9.3	0.0000
	Private, for-profit less-than-2-year	2,350	1,290	1.6	2.0	-0.1000	1.7	1.7	0.0000
	Private, for-profit 2-year	780	390	1.6	1.7	-0.0300	1.7	1.7	0.0000
	Private, for-profit 4-year	760	410	1.2	1.4	-0.0600	1.3	1.3	0.0000
Student's marital status	Single	‡	‡	‡	‡	‡	73.0	74.0	-1.0010[2,3]
	Married	‡	‡	‡	‡	‡	25.7	24.6	1.0590[2]
	Separated	‡	‡	‡	‡	‡	1.3	1.4	-0.0580
Stafford categories for all Stafford recipients[5]	UG and Stafford amt <= $2,625	3,710	1,340	27.8	28.7	-0.2200	28.2	28.0	0.1970
	UG and $2,625 < Stafford amount <= $4,425	3,000	1,020	19.0	20.1	-0.2700	19.1	19.3	-0.2630
	UG and $4,425 < Stafford amount <= $5,500	3,860	1,080	18.9	17.4	0.3800	18.8	18.5	0.2970
	UG and $5,500 < Stafford amount	3,080	1,060	19.4	20.6	-0.3000	19.6	19.7	-0.0500
	GR/FP and Stafford amt <= $8,000	640	190	3.5	3.1	0.0900	3.3	3.4	-0.1320
	GR/FP and $8,000 < Stafford amount <= $12,521.50	620	180	3.5	3.1	0.0800	3.3	3.4	-0.1110
	GR/FP and $12,521.50 < Stafford amount <= $18,500	950	260	5.9	5.0	0.2400	5.7	5.7	0.0330
	GR/FP and $12,521.50 < Stafford amount	320	110	2.0	2.0	-0.0100	2.0	2.0	0.0300

Table 4-23.— Nonresponse bias before CATI nonresponse adjustment and after weight adjustments for selected variables for all students —Continued

Description	Response	Before CATI nonresponse adjustment—unimputed data					After weight adjustments—imputed data		
		CATI unweighted respondents	CATI unweighted nonrespondents	CATI respondent mean, study weights	CATI nonrespondent mean, study weights	Estimated bias	Mean, CATI weights	Mean study weights	Estimated bias
Amount of Stafford Loan received		16,180	5,230	6014.3	5839.6	43.1473	5,990.5	5971.2	19.2861
Did the student receive a Stafford Loan?	Yes	16,180	5,230	29.5	23.7	1.6900[1]	27.7	27.8	-0.0890
	No	28,310	12,050	70.5	76.3	-1.6900[1]	72.3	72.2	0.0890
Did the student receive any state Financial aid?	Yes	6,580	2,050	14.8	12.2	0.7500[1]	14.1	14.1	0.0180
	No	37,920	15,230	85.2	87.8	-0.7500[1]	85.9	85.9	-0.0180
Student type – sampled	Baccalaureate	11,340	3,700	6.9	5.7	0.3400[1]	6.4	6.5	-0.1510[2,3]
	Other undergraduate	24,620	10,890	78.8	83.3	-1.3000[1]	80.2	80.1	0.0830
	Graduate	7,610	2,400	12.4	9.5	0.8300[1]	11.7	11.6	0.1120
	First-professional	920	280	1.9	1.5	0.1200[1]	1.7	1.8	-0.0430
Student type – CADE	Undergraduate	35,540	14,400	85.2	88.5	-0.9700[1]	86.2	86.2	0.0000
	Graduate	8,040	2,600	13.0	10.1	0.8400[1]	12.2	12.2	0.0000
	First-professional	920	280	1.8	1.4	0.1400[1]	1.7	1.7	0.0000

‡The distribution based on the CATI weights is significantly different at the 0.05 level from the distribution based on the study weights.

[1] Bias is significant at the 0.05/(c-1) level, where c is the number of categories within the primary variable.

[2] Bias is likely significant at the 0.05/(c-1) level, where c is the number of categories within the primary variable.

[3] Before-CATI nonresponse adjustment results were not completed because of the high level of nonresponse (i.e., greater than 5 percent) associated with the variable and only variables known for most respondents and nonrespondents were included in this analysis.

[4] Enrollment categories were defined by quartiles.

[5] UG = undergraduate, GR = graduate, and FP = first-professional.

4.6.2 CATI Data Indeterminacies

Special keyed entry (F3 or F4 key) allowed the CATI interviewers to accommodate responses of "don't know" and "refusal" to every item. Refusal responses to interview questions were most common for items considered sensitive by respondents, while don't know responses may have resulted from a number of circumstances. The most obvious reason a respondent will offer a don't know response is that the answer is truly unknown or in some way inappropriate for the respondent. Don't know responses may also be evoked when (1) question wording is not understood by the respondent (with no explanation by the interviewer), (2) the respondent hesitates to provide a "best guess" response (with insufficient prompting from the interviewer), and (3) a respondent implicitly refuses to answer a question. Refusal and don't know responses introduce indeterminacies in the data set and must be resolved by imputation or subsequently dealt with during analysis.

Overall item nonresponse rates in the NPSAS:2000 interview were low, with only 38 items (of approximately 575 CATI items) containing over 10 percent missing data. These items are shown in table 4-24, and are grouped by interview section.

Item nonresponse rates were calculated based on the number of sample members for whom the item was applicable and asked. Items with the highest rates of nonresponse were those pertaining to graduate admissions test scores. Between 47 and 49 percent of respondents who were asked to report scores on the various sections of the Graduate Record Exam (GRE) gave don't know responses or refused to answer. The same pattern was evident with the other test scores collected, but less pronounced, with 34 percent and 25 percent providing don't know or refusal responses for the Graduate Management Admission Test (GMAT) and Law School Admissions Test (LSAT), respectively. The other type of item with a high rate of indeterminancy collected information about income and assets, as well as details of financial aid, including sources of grants and amounts borrowed. Many respondents were reluctant to provide information about personal and family finances. These items were more likely to be indeterminate due to refusals.

4.6.3 Interviewer Use of Online Help Text

Online help text was available for every screen in the CATI instrument. Having additional information available at the touch of a key (F10) was very beneficial to interviewers, particularly at the beginning of data collection, to immediately alleviate any confusion with questions while they were still on the telephone with the respondent. Help-text screens displayed information designating to whom the item applied, type of information that was requested in the item, and definitions of words or phrases in the item.

Counters were used to determine the number of times each help screen was accessed, making it possible to identify items that were confusing to interviewers or respondents. Table 4-25 presents CATI items having the highest rates of help-text usage, along with their rates of indeterminacy. An analysis of the number of help-text accesses revealed 36 (of approximately 575 CATI items) for which the help text was accessed more than 100 times.

The items pertaining to the lifetime learning tax credit, the Hope scholarship, and plans to use either tax credit in the year 2000 had the greatest number of accesses to help text. These items also had high rates of indeterminacy, suggesting that both interviewers and respondents were largely unfamiliar with these new tax credits. It is also likely that students' parents were claiming the tax credits rather than the students themselves, which could explain the high rate of DK responses despite the fact that interviewers used the help text to explain what the credit was. The help text included a thorough explanation of the tax credits as well as Web site information so respondents could learn more about them.

4.6.4 CATI Online Coding

The NPSAS:2000 instrument included tools that allowed computer-assisted online assignment of codes to literal responses for postsecondary education institutions attended, major field of study, occupation, and industry. Online coding systems were designed to improve data quality by capitalizing on the availability of the respondent to clarify coding choices at the time the coding was performed. To assist with the online coding process, interviewers were trained to use effective probing techniques to ensure each response was appropriately coded. Interviewers could request clarification or additional information if a particular text string could not be successfully coded on the first attempt, an advantage not possible when coding occurs after an interview is complete. Because both the literal string and selected code were captured in the data file for field of study and occupation/industry responses, subsequent quality control recoding by project staff was easily incorporated into data collection procedures.

Institutional coding was used to assign a six-digit IPEDS identifier for each postsecondary institution the respondent reported attending. To facilitate coding, the IPEDS coding system asked for the state in which the institution was located, followed by the city, and finally the name of the postsecondary institution. The system relied on a look-up table, or coding dictionary, of institutions which was constructed from the 1997–98 IPEDS IC file. Additional information in the dictionary, such as institutional level and control, was retrieved for later use (e.g., branching) once the institution was properly coded.

Table 4-24.—Student interview item nonresponse for items with more than 10 percent "don't know" or "refused"

CATI section and variable name[1]	CATI variable label	Unweighted				Weighted combined percent
		Number asked	Percent don't know	Percent refused	Combined percent	
Section A: Eligibility and enrollment						
NAGPA	Cumulative GPA	40,428	12.1	0.6	12.7	15.1
NAMAJGPA	Major GPA	9,547	16.7	0.8	17.5	17.6
Section B: Student background						
NBRACESP	Specify race (respondent)	100	7.0	3.0	10.0	7.6
NBARRVF	Year father arrived in US	6,890	15.8	1.0	16.8	18.0
NBARRVM	Year mother arrived in US	7,303	12.9	1.1	14.0	15.4
NBDADAS	Father earned associate's degree	3,201	10.1	0.3	10.4	11.6
Section C: Financial aid						
NCOTHGT1	Other grant 1-TARGET [2]	311	11.6	1.3	12.9	12.3
NCSRCT1	Source of grant/scholarship 1-TARGET [2]	312	9.9	1.6	11.5	11.5
NCAMTT1	Amount of grant/scholarship-1-TARGET [2]	312	19.9	1.9	21.8	21.0
NCOTHGT2	Other grant 2-TARGET [2]	110	11.8	2.7	14.6	13.2
NCSRCT2	Source of grant/scholarship 2-TARGET [2]	110	11.8	2.7	14.6	13.1
NCOTHGI1	Other grant 1-school 1 [2]	373	13.7	1.1	14.8	16.1
NCSRCI1	Source of grant/scholarship 1-school 1 [2]	372	11.3	1.1	12.4	14.7
NCAMTI1	Amount of grant/scholarship-1-school 1 [2]	372	19.9	1.9	21.8	23.0
NCHOPE	Use Hope scholarship	11,386	15.3	0.5	15.8	14.3
NCLIFTIM	Use lifelong learning tax credit	24,153	14.6	0.7	15.3	14.8
NCCRD00	Plan to claim tax credit in 2000	6,597	15.1	0.3	15.4	15.3
NCSUPEST	Estimate support-nontuition expenses	1,171	8.3	2.7	10.9	13.3
Section D: Employment and income						
NDEARN	Earnings from working while enrolled	34,259	8.5	4.4	12.9	13.3
NDHRSEXP	Hours expected to work	7,577	15.7	0.7	16.4	15.8
NDINC99	Earnings this calendar year	43,937	8.6	4.5	13.1	13.7
NDINC98	Earnings in 1998	9,700	8.9	3.9	12.8	13.7
NDINCS99	Spouse's earnings in 1999	13,099	10.1	8.8	18.9	19.6
NDINCS98	Spouse's earnings in 1998	2,761	21.0	17.9	38.9	41.3
NDOINC99	Total income–1999	42,055	11.8	1.4	13.2	13.3
NDOINC98	Total income–1998	5,798	12.4	1.6	14.0	14.9
NDPARINC	Parents' income–1999	7,450	14.1	4.6	18.7	20.5
NDBSEST	Business value over $10,000	259	12.7	16.2	29.0	33.0
NDINEST	Value of other investments over $10,000	709	10.3	26.4	36.7	35.8
NDINVAL	Total value of other investments	3,593	9.3	10.4	19.7	19.4
NDCASH	Total cash and savings	18,670	8.0	13.2	21.3	21.6
NDCRDBAL	Balance due on all credit cards	15,253	8.4	5.2	13.5	14.0
Section E: Education experiences						
NEGREA	GRE score–analytic	4,053	46.4	2.6	49.1	52.7
NEGREM	GRE score–math	4,033	44.2	2.4	46.6	50.1
NEGREV	GRE score–verbal	4,057	44.0	2.9	46.8	49.9
NEGMAT	GMAT score–total	857	31.2	2.8	34.0	34.0
NELSAT	LSAT score	770	20.4	4.7	25.1	26.2
Section G: Locating information						
NGIDYES	Will provide student ID number	3,096	19.0	5.8	24.8	24.7

[1] CATI items are presented in instrument order, by section.

[2] Some students attended more than one institution during the NPSAS year. In such cases, the institution at which the student had received a degree or was working toward a degree was identified as the target institution. For each institution attended, information was collected on up to three grants or scholarships. These items were not asked at any institution if the information was already available from CADE.

NOTE: Statistics are based on student sample members for whom specific items were applicable and were asked. Items applicable to fewer than 100 sample members were excluded from consideration.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 4-25.—Item-level rates of help text access for items for which help was accessed more than 100 times

CATI section and variable name[1]	CATI variable label	Frequency asked in CATI[2]	Help count[3]	Rate of help text access[4]	Combined indeterminacy rate[5]
Section A: Eligibility and enrollment					
NADEGN	Degree program at NPSAS school	44,486	154	0.3	0.5
NAUGYR	Undergraduate year	35,522	109	0.3	1.2
NAGPA	Cumulative GPA	40,428	154	0.4	12.7
Section B: Student background					
NBOTDEPS	Has dependents other than children	41,008	131	0.3	0.2
NBPOLIT	Attend political meetings	38,289	218	0.6	0.4
NBGUARD	Legal guardian other than parent	28,325	207	0.7	0.3
NBPRHSD	Number of dependents-parent household	28,242	180	0.6	1.6
Section C: Financial aid					
NCRCVAID	Received financial aid	36,795	109	0.3	0.1
NCOTAIDN	Receive other aid-NPSAS	44,204	309	0.7	0.6
NCFAMLN	Amount borrowed from family/friends	36,694	164	0.4	4.4
NCFAMN99	Amount borrowed-family/friends-NPSAS	40,893	250	0.6	3.1
NCUGLN	Amount borrowed for undergraduate loans	44,193	315	0.7	4.8
NCFEDUGL	Amount borrowed in fed undergrad loans	19,133	627	3.3	7.3
NCPARTUI	Parents helped pay tuition	30,496	136	0.4	0.5
NCSCHSUP	Support for school expenses-not tuition	30,491	400	1.3	0.4
NCSUPAMT	Amount-support for non-tuition expenses	30,490	173	0.6	4.3
NCHOPE	Use Hope scholarship	11,386	647	5.7	15.8
NCLIFTIM	Use lifelong learning tax credit	24,153	1,652	6.8	15.3
NCCRD00	Plans to take tax credit in 2000	6,597	716	10.9	15.4
Section D: Employment and income					
NDNUMJOB	Number of jobs during NPSAS year	44,074	265	0.6	0.2
NDOCCENR	Occupation: duty string	34,310	147	0.4	0.6
NDEMPTYP	Type of employer	31,534	449	1.4	1.5
NDEARN	Earnings from working while enrolled	34,259	249	0.7	12.9
NDLICENS	Number of licenses held	40,675	378	0.9	0.2
NDDEP99	Respondent claimed as a dependent-1999	18,722	211	1.1	4.1
NDINC99	Earnings this calendar year	43,937	241	0.5	13.1
NDINC98	Earnings in 1998	9,700	101	1.0	12.8
NDOINC99	Total income-1999	42,055	1,125	2.7	13.2
NDUNTAX	Receive untaxed benefits in 1999	43,912	181	0.4	1.0
NDCASH	Total cash and savings	18,670	343	1.8	21.3
NDNUMCRD	Number of credit cards in own name	40,593	306	0.8	2.2
Section E: Education experiences					
NEREMEVR	Taken remedial courses	40,571	392	1.0	0.2
NEGRE	Take GRE	22,551	122	0.5	0.3
Section F: Disabilities					
NFDISOTH	Physical/mental/emotional disability	43,841	125	0.3	0.2
NFMAIN	Main limiting condition	4,059	162	4.0	1.5
NFVOCREC	Ever received vocational rehab services	41,188	246	0.6	0.0

[1] CATI items are presented in instrument order, by section.

[2] This column represents the number of times each CATI item was administered.

[3] This column represents the number of times that interviewers accessed help text while conducting interviews with respondents.

[4] The rate presented is expressed as a percentage and computed as the number of times the help text for each item was accessed, divided by the number of times that particular item was administered, multiplied by 100.

[5] The rate of indeterminacy is the number of "don't know" and "refused" responses divided by the number of times the item was administered, multiplied by 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Major field of study, occupation, and industry coding used a dictionary of word/code associations. The online procedures for these coding operations consisted of four steps: (1) the interviewer keyed the verbatim text provided by the respondent; (2) the dictionary system displayed words that were associated with the words in the text string and the interviewer was given the choice of either accepting a word that might help in terms of coding, or ignoring a word that was of no help; (3) standard descriptors associated with identified codes were displayed for the interviewer; and (4) the interviewer selected a standard descriptor that was listed, with assistance from the respondent if needed.

Several steps were taken after data collection to ensure the completion and accuracy of the online coding procedures. The first step was upcoding, where project staff reviewed all of the literal strings that were "uncodeable" by the telephone interviewers and coded the strings into the appropriate categories. Table 4-26 presents the proportion of coding attempts that were uncodeable by interviewers but were subsequently coded by project staff.

Institutional coding was the most initially uncodeable field, and also had the lowest rate of successful coding after the upcoding procedure. This is largely due to the different manner in which institutions were coded. IPEDS coding required a precise match between the name of the institution entered and the IPEDS database, while major field, industry, and occupation were coded by assigning verbatim strings to categories, or standard descriptors. To code institutions, respondents profided the state, city, and name of the institution, and the code was assigned once a match was found from the 1997-98 IPEDS IC file. An institution remained uncodeable if there was not an exact match in the database, whereas a major, occupation, or industry could be coded more easily into a category. Another factor contributing to the high rate of uncodeable institutions is that there were a number of foreign institutions attended by respondents. Foreign institutions were not included in the IPEDS database, and thus were not codeable either online or during post-data collection coding procedures.

Of the remaining codeable fields, very few literal strings given by respondents were uncodeable. Occupation had an uncodeable rate of 2 percent, while industry and major both had less than 1 percent initially uncodeable. However, project staff were able to successfully code virtually all of the initially uncodeable strings.

Table 4-26.—Success of online coding procedures: Upcoding

Coding procedure	Total coding attempts*	Number originally uncodeable	Percent originally uncodeable	Percent successfully coded
IPEDS	72,468	3,822	5.3	96.5
Major field of study	37,779	192	0.5	99.9
Occupation	86,021	1620	1.9	99.9
Industry	21,583	133	0.6	99.9

*Because these items may have been asked multiple times in an interview, the total number of coding attempts may exceed the total number of completed interviews.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The second step to ensure data quality was the recoding process. Ten percent[8] of the major, occupation, and industry coding results were sampled and evaluated. The verbatim strings were evaluated for completeness and appropriateness of the assigned codes. Upon review of the string and assigned code, project staff sometimes determined that a different code should be assigned. Table 4-27 presents the results of the evaluation of the online coding procedures. Industry was the item with the highest recode rate. Of the industry coding attempts sampled, 7.5 percent were recoded, or assigned to a different category. Occupation also required 7 percent of the sampled cases to be recoded. Major field of study had a lower recode rate at 5 percent. However, none of the recodes resulted in a broad shift across categories. Rather, recoding helped to fine tune a code assignment that was close but not completely accurate.

Table 4-27.—Success of online coding procedures: Recoding

Coding procedure	Total coding attempts*	Coding attempts sampled	Number of sample cases recoded	Percent of sample cases recoded
Major field of study	37,779	3,797	208	5.5
Occupation	87,021	8,582	607	7.1
Industry	21,583	2,076	155	7.5

*Because these items may have been asked multiple times in an interview, the total number of coding attempts may exceed the total number of completed interviews.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

4.6.5 CATI Quality Circle Meetings

Quality circle meetings were an integral tool used throughout NPSAS: 2000 full-scale data collection to evaluate project operations. During these regularly scheduled meetings, interviewers, supervisors, team leaders, and project technical staff met to discuss issues pertinent to data collection such as tracing/locating respondents and conducting CATI interviews in an efficient, but effective manner. During the first 4 weeks of data collection, quality circle meetings were scheduled once a week; afterward, every other week. To ensure that each NPSAS telephone interviewer would have an opportunity to attend at least two sessions, meetings were scheduled on alternating days of the week, as well as weekends, to maximize the chances of including telephone interviewers who only worked on certain days and/or shifts. After each meeting, quality circle minutes were compiled and distributed among the telephone interviewers for their reference.

The quality circle meetings were instrumental in providing prompt and precise solutions to problems encountered by the interviewers, whose experiences with respondents were invaluable to project staff. Several modifications were made to the CATI instrument as a result of these meetings. Types of issues raised during the quality control meetings were as follows.

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[8] Not every item was applicable to all respondents. The 10 percent sample was drawn from all instances in which a valid literal string was coded by the telephone interviewer. Uncodeable strings were treated separately.

Instrument changes/fixes. Telephone interviewers were notified when any change was made to the instrument such as question wording, new or added response options, or a fix that was implemented a result of an earlier CATI bug.

Revising help text. Additional help text was added to some questions to aid telephone interviewers in coding, or in answering questions that a respondent may have had. This added text could have been either a definition of a term that was mentioned in the question, or helpful examples of items that should/should not be included when coding.

Reviewing/entering case-level comments. The importance of reviewing and entering comments pertaining to contacting attempts for each sample member was stressed throughout data collection. Telephone interviewers were encouraged to always check the record of calls to see what happened previously on a particular case. This enabled them to contact the respondent at the appropriate time and phone number. By entering effective comments, they created a detailed description of events that would be helpful to anyone who accessed the case.

Problem sheets. Telephone interviewers could report CATI or interviewing problems electronically by submitting a problem sheet. Project staff reviewed these problem sheets in order to determine what issues were troubling interviewers. Problems that were prevalent were addressed in the quality circle meetings and in the quality circle minutes.

Coding. Considerable emphasis was placed on properly coding responses. Since most respondents did not give verbatim responses that exactly matched our response categories, telephone interviewers were instructed on how to fit those responses into the "best" possible category. In addition, telephone interviewers were also given helpful tips on how/how not to code items in the online coding system.

4.6.6 CATI Quality Control Monitoring

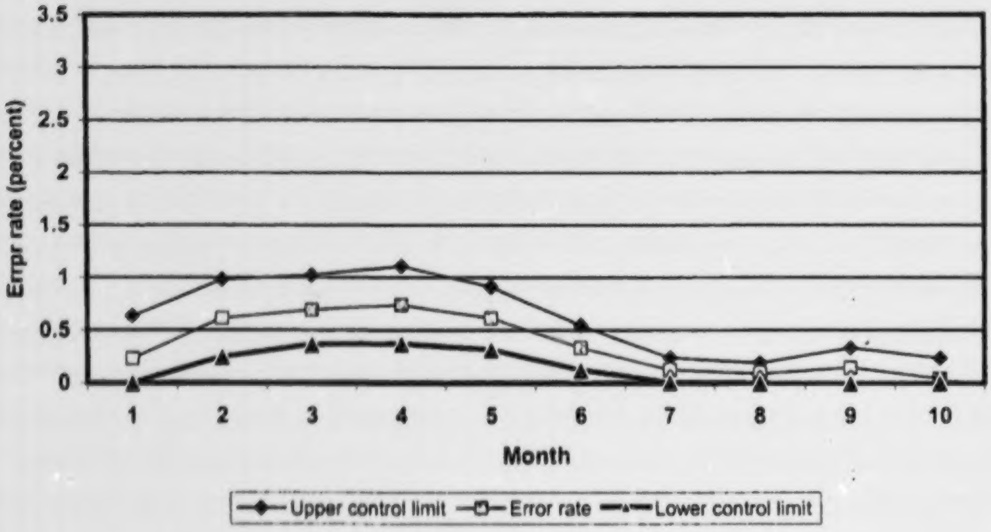
Monitoring of telephone data collection leads to better interviewing and better-quality survey data as well as to improvements in costs and efficiency in telephone facilities. Monitoring in the NPSAS:2000 helped to meet four important quality objectives: (1) reduction in the number of interviewer errors; (2) improvement in interviewer performance by reinforcement of good interviewer behavior; (3) assessment of the quality of the data being collected; and (4) evaluation of the overall survey design for full-scale implementation.

Monitors listened to up to 20 questions as the interviews were in progress and, for each question, evaluated two aspects of the interviewer-respondent interchange: whether the interviewer (1) delivered the question correctly and (2) keyed the appropriate response. Each of these measures was quantified, and daily, weekly, and cumulative reports were produced for the study's IMS. During the data collection period, 49,096 items were monitored. The majority of the monitoring was conducted during the first half of data collection. Toward the end of data collection, monitoring efforts were scaled back due to the lighter caseload being worked by telephone interviewers, the greater experience of the remaining interviewers, and the satisfaction by project staff that the process was proceeding smoothly. Figure 4-4 shows error rates for question delivery; figure 4-5 shows error rates for data entry. Both presentations provide upper and lower control limits for these measures.[9]

4.6.7 Reliability of Interview Responses

During instrument development for the NPSAS:2000 full-scale study, project staff developed a short computer-assisted telephone reinterview to assess the reliability of key interview items (see appendix F for a copy of the reliability reinterview). This reinterview was then administered to a randomly selected subsample of NPSAS:2000 interview respondents in order to assess the short-term temporal stability, which is a measure of reliability, of these instrument items. During data collection for the reliability assessment, a subsample of 275 CATI interview respondents was asked to participate in the reinterview process. From this group, 235 reinterviews were completed, resulting in an 85.5 percent response rate for the reinterview. The reliability statistics presented in this section are based on these 235 respondents. Sample member recontacting took place at least 3 weeks after the initial interview. Reinterviewing began on October 16, 2000. The period between the initial interview and the subsequent reliability reinterview ranged from 21 to 234 days, with an average of approximately 90 days.

Figure 4-4.—Monitoring error rates for CATI question delivery



SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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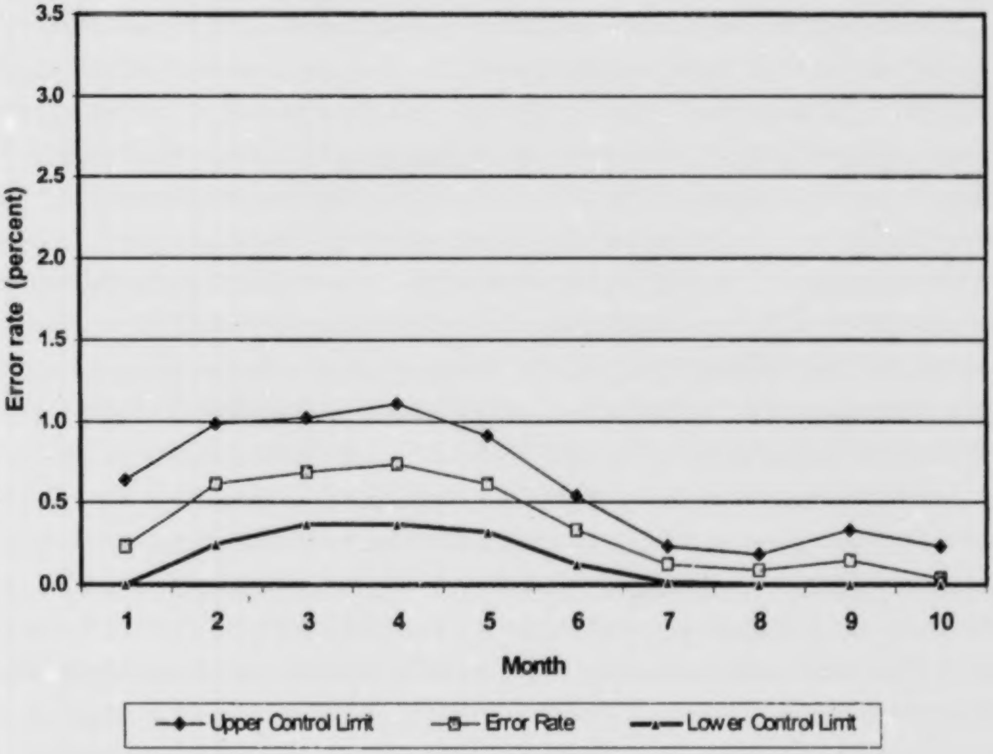
[9] The upper and lower control limits were defined by three times the standard error of the proportion of errors to the number of questions observed for the period (+3 times the standard error for the upper limit; -3 times the standard error for the lower limit).

Figure 4-5. — Monitoring rates for CATI data entry



NOTE: The upper and lower control limits were defined by three times the standard error of the proportion of errors to the number of questions observed for the period (+3 times the standard error for the upper limit; -3 times the standard error for the lower limit).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Reliability, as examined here, involves the stability of responses over time (i.e., temporal consistency); consequently, analyses generally focus on data items that are expected to be stable for the period between the initial interview and the reinterview (e.g., factual rather than attitudinal data). The design of the reinterview study called for reinterviews to be conducted within 2 months of the initial interview, allowing enough time for respondents to forget their previous anwers but not enough time so that actual changes in status would make accurate answering produce different responses. Unfortunately, time delays in conducting the reinterviews may have contributed to the occurrence of real change (between the interview and reinterview) in the status of the information requested of some respondents. Therefore, for certain items, any instability or unreliability suggested by these analyses may be due to real differences that have occurred between the two interviews.

Responses in the initial interview and the reinterview were compared using two measures of temporal stability for all paired responses. The first, *percent agreement*, was determined in one of two ways. For categorical variables, the interview/reinterview responses *agreed* when there was an exact match between the two responses. For continuous variables, the two responses were considered to match when their values fell within one standard deviation unit of each other.[10]

The second measure evaluated temporal stability using one of three relational statistics: Cramer's V, Kendall's tau-*b* (τ_b), and the Pearson product-moment correlation coefficient (***r***). The selection of a relational statistic was dependent upon the properties of the particular variable. Cramer's V was used for items with discrete, unordered response categories (e.g., yes/no responses). Kendall's tau-*b* (τ_b), which takes into account tied rankings,[11] was used for questions answered using ordered categories (e.g., never, sometimes, often). For items yielding interval or ratio scale responses (e.g., income), the Pearson product-moment correlation coefficient (**r**) was used. In the reinterview instrument, information from the initial interview was preloaded in order to ensure that reinterview questions were asked in the same way and with the same wording across the two interviews. Lack of agreement (or low association) between responses from the same individuals reflects instability over short time periods due to measurement error. In contrast, high indices of agreement suggest that interview responses were relatively free of response errors that cause response instability over short periods of time.

While analyses were based on the 235 respondents who completed reinterviews, effective sample sizes are presented for each item because analyses were further restricted to cases with determinate responses to the relevant items in both interviews. Because not all items were applicable to all respondents (e.g., only B&B-eligible students were asked undergraduate experience items), variation exists in the number of cases on which the reliability indices were based. Results of the reliability analyses are presented in table 4-28.

Dependent children. In the interview and subsequent reinterview, sample members were asked, "Do you have any children that you support financially?" If yes, the follow-up question collected the numbers of these dependents in four different age ranges: less than 5 years old, 5–12, 13–16, and more than 16 years. The overall temporal stability for this series of items was quite high. Percent agreement was above 90 percent for all but one item. The relational statistic ranged from 0.81 to 0.97.

The item with the highest measure of reliability was the first one, which determined whether the respondents had any dependent children they supported financially. Percent agreement for this item was 98.7, with a relational statistic of 0.97. Most respondents reported "no" to this item, as evidenced by the reduction in the number of cases in the follow-up questions. While still within acceptable limits of reliability, respondent reports of the number of dependents over age 16 had the lowest measures of temporal stability, with 87.5 percent agreement and a relational statistic of 0.81.

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[10] This is equivalent to within one-half standard deviation of the average (best estimate of actual value) of the two responses.

[11] See for example, Kendall, M. (1945). "The treatment of ties in rank problems." *Biometrika*, Vol. 33, pp. 81–93; and Agresti, A. (1984). *Analysis of Ordinal Categorical Data*. New York, NY: Wiley & Sons.

Table 4-28. — Reliability indices for selected CATI items

Item series	Number of cases[1]	Percent agreement[2]	Relational statistic
Dependent children			
Have any dependent children	235	98.7	0.97[3]
Number of dependents less than 5 years old	56	94.6	0.94[4]
Number of dependents 5–12 years	56	92.9	0.94[4]
Number of dependents 13–16 years	56	96.4	0.91[4]
Number of dependents more than 16 years old	56	87.5	0.81[4]
Source of child care	41	58.5	0.55[3]
Average monthly child care costs	#	#	#
Sources of financial aid			
Financial aid received: employer assistance	29	96.6	0.93[3]
Financial aid received: personal loan from bank	28	96.4	0.85[3]
Financial aid received: veteran's benefits	29	100.0	1.00[3]
Financial aid received: aid from private organization	29	89.7	0.79[3]
Financial aid received: foreign organization	#	#	#
Financial aid received: other source	29	79.3	0.15[3]
Support for educational expenses			
Did anyone, such as parents, pay tuition and fees	165	75.2	0.59[3,7]
Did anyone provide money for school-related expenses, (excluding tuition)	164	78.0	0.48[3,7]
How much was given for school-related expenses (excluding tuition)	28	82.1	0.60[4]
Income			
Earnings in 1999	200	99.5	0.93[4]
Earnings in 1998 same as 1999	92	75.0	0.50[3]
Earnings for 1998	27	100.0	0.99[4]
Spouse's earnings in 1999	50	98.0	0.98[4]
Spouse's earnings in 1998 same as 1999	27	74.1	0.37[3]
Spouse's earnings for 1998	#	#	#
Credit Cards			
Number of credit cards in own name	232	78.0	0.71[5]
Pay off each month or carry a balance	169	88.8	0.78[3]
Parents help pay credit card bills	47	87.2	0.53[3,7]
Use credit card to pay tuition	170	90.0	0.69[3,7]
Professional licenses			
Number of professional licenses	235	77.0	0.67[4]
Professional license	53	73.6	0.81[5,6]
Technology usage			
Frequency of using e-mail to communicate	51	80.4	0.76[5]
Frequency of searching Internet for information/research	51	90.2	0.71[5]
Frequency of participating in chat rooms for class	51	82.4	0.57[5,7]
Frequency of using spreadsheet software	50	68.0	0.60[5]
Frequency of programming computer languages	50	72.0	0.40[5]
Frequency of using word-processing software	51	86.3	0.35[5,7]

[#] Too few cases to report

[1] Analyses were conducted only for respondents with determinate responses on both the initial interview and the reinterview; not all questions were applicable to all respondents.

[2] Percentage agreement is based on an exact match for nominal and ordinal measures, and differences not exceeding one standard deviation unit for continuous measures.

[3] Relational statistic used was Cramer's V.

[4] Relational statistic used was the Pearson product moment correlation coefficient, r.

[5] Relational statistic used was Kendall's Tau, T_b.

[6] Up to three professional license responses were alloted, but only the first one was included in the analysis.

[7] The relational statistic is deceptively deflated due to insufficient variation across valid response categories. As a result, minor changes on the distribution of responses between the original and reinterview significant lower of the correlation coefficient.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Respondents with dependent children under 12 were asked to identify the individual or group (e.g., parents, other relatives, friends or neighbors, or child care center) that was the primary child care provider while the respondent was at the named institution. A follow-up question then asked about the average monthly day care costs during the last term in the 1999–2000 academic year. Overall, percent agreement was relatively poor on the primary item, perhaps indicative of the inherent variability in the child care available to postsecondary students; the followup item applied to too few reinterview respondents for appropriate estimation of reliability.

The distribution of responses between the initial interview and the reinterview suggests several problems with the wording of the question "*While you're at school,* who cares for your child/children?" This question may have been especially difficult to answer for students with schedules that changed regularly. For example, students might call upon a friend or neighbor for evening classes, but place their child/children in a day care facility during the day. Child care arrangements could change from term to term as well. Additionally, the question was not designed to handle respondents who may have had a child in a child care facility and another child at school during the day. Furthermore, it may have been difficult to distinguish child care while at school from child care at any other time. To improve the response consistency of this item in future studies, it will help to specify a time period of interest, and allow multiple responses for those who may have children with differing arrangements.

Financial aid. This series of questions represents a new way of obtaining information about financial assistance received from sources other than federal student aid. Private commercial loans and employer reimbursement are among the new sources of aid increasingly being used by students financing their postsecondary education.

Overall results indicated remarkably high reliability for these items, with one exception. Percent agreement ranged from 79.3 to 100 percent and the relational statistic ranged from 0.15 to 1.00. Receipt of veteran's benefits as a form of financial aid had 100 percent agreement and a relational statistic of 1.00, while employer assistance, personal loans from banks, and aid from private organizations all had at least 89.7 percent agreement and a relational statistic of at least 0.79. However, financial aid from other sources not previously mentioned had lower reliability, with 79 percent agreement and a relational statistic of 0.15.

This series of items was first introduced in the field test of NPSAS:2000.[12] Initial indicators of reliability for these items from the field test were quite good; however, indicators of reliability from the full-scale study were better. For example, percent agreement for receipt of private/commercial loans increased from 91.0 to 96.4 percent and employer aid increased from 92.3 to 96.6 percent. Likewise, relational statistics increased: private loans went from 0.74 to 0.85 and employer aid increased from 0.60 to 0.93.

Support for educational expenses. The items pertaining to parental support for postsecondary tuition and other expenses had moderately acceptable measures of temporal stability, with percent agreement ranging from 75 to 82 percent. The relational statistics were low, ranging from 0.48 to 0.60. The first item asked if parents helped to pay tuition, and response options allowed sample members to report that parents paid none, some, or all of their tuition. The majority of the inconsistent responses were between the "some" and "all" categories.

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[12] For results of the NPSAS:2000 field test, which tested procedures and instruments before the start of the full-scale study, see Biber, M.R., Link, M.W., Riccobono, J.A., & Siegel, P.H. (October 2000). *National Postsecondary Student Aid Study: 2000 Field Test Methodology Report* (NCES Working Paper No. 2000-17). Washington, DC: U.S. Department of Education, National Center for Education Statistics.

The follow-up item regarding support for school-related expenses excluding tuition had 78 percent agreement and a relational statistic of 0.48. It is possible that the term "school-related expenses, not including tuition" was vague and thus respondents might have a difficult time determining what to include when answering the question.

The item that collected the amount received in support for school-related expenses excluding tuition likely suffered from the problem just mentioned. Although there was 82 percent agreement, the relational statistic was 0.60.

Income. Reinterview results for sample members' self-reported incomes for 1998 and 1999 (the "current year" for NPSAS:2000) and comparable items for the sample members' spouses are presented in table 4-28. The reason for the inclusion of income items in the reinterview is twofold. First, these income measures were critical items for NPSAS:2000, and were closely related to postsecondary education plans. Moreover, income questions are typically among the most unreliable measures in interviews, and considerable efforts were made to improve the quality of the data collected. Overall, percent agreement showed good response stability over time for these items.

Respondents were first asked for their income in calendar year 1999 and then asked if the amount earned in 1998 was about the same as in 1999. If the answer to the second question was "no" then 1998 income was collected. The two items that collected dollar amounts for income had exceptionally high reliability, with at least 99 percent agreement and a relational statistic of at least 0.93 for both calendar years 1998 and 1999. The item with the lowest reliability measures in this series was the one that asked if 1998 income was about the same as in 1999. Percent agreement for this item was only 75 percent and the relational statistic was only 0.50. In future studies, the question should be reworded so that "about the same" is more clearly defined.

The same pattern was evident in the measures of response stability for spouse's income. Reports of spouse's 1999 income were very reliable, with 98 percent agreement and a relational statistic of 0.98. The item about whether the spouse's 1998 income was the same as in 1999 had only 74 percent agreement and a relational statistic of 0.37.

Credit cards. The first question in the credit card series asked how many cards the respondent had in his or her own name: none, one or two, or three or more. Follow-up questions asked those with at least one credit card whether they carried a balance, if their parents helped to pay the credit card bills, and whether the credit cards were used to pay tuition. The number of cards held by respondents appears to have been the least reliable item in the series. It had 78 percent agreement and a relational statistic of 0.71. Reliability improved, however, for the follow-up items. For the remaining three items, percent agreement ranged from 87 to 90 percent and the relational statistic ranged from 0.53 to 0.78. The relational statistics for the last two items in the series are low relative to their levels of percent agreement.

Professional licenses. Based on analyses of professional licenses and credentials collected in other NCES-sponsored studies (e.g., the National Education Longitudinal Study NELS:88/2000), there was some concern about the consistency of responses for students reporting the possession of professional licenses and certificates.

The first question asked for the number of licenses held (up to four). If the respondent reported having any licenses, a follow-up item collected up to three types of license. Results showed 77 percent agreement and a relational statistic of 0.67 for having any licenses, suggesting moderately acceptable reliability. Most cases of non-agreement, however, were due to reports of greater numbers of licenses in the reinterview, which could be because of real change. The reliability measures for the type of license were similar, with 74 percent agreement and a relational statistic of 0.81. These items have been revised in subsequent NCES surveys (BPS:1996/2001 and B&B:2000/2001) so that they collect much more detail about licenses and certifications. Literal strings are captured so that the strings and codes may be evaluated for accuracy and consistency to improve the way this information is collected.

Technology usage for B&B-eligible students. The NPSAS:2000 interview included several new items intended to capture the increased use of technology among students. The response options to these questions were never, sometimes, and often. The percent agreement and relational statistics for the technology usage items were moderately acceptable, with percent agreement reliability from 68 to 90 percent and with relational statistics ranging from 0.35 to 0.76.

Frequency of searching the Internet for homework or research purposes had the highest reliability statistics of all items in the series, with 90 percent agreement and a 0.71 relational statistic. However, two items suffered from relatively poor reliability. Using spreadsheet software and computer programming languages had 68 and 72 percent agreement, respectively. The relational statistics for these items were 0.60 and 0.40, respectively.

During both the initial interview and the reinterview, most of the students reported using e-mail, the Internet, and word-processing software "often." Most also reported that they "never" used chat rooms to discuss educational issues. The low relational statistics for these measures are largely attributable to the unbalanced distribution of responses (i.e., the few among those initially in the minority category who reversed responses by the time of the reinterview).

Chapter 5
Variable Construction and File Development

5.1 Overview of the NPSAS Files

The NPSAS:2000 data files contain student-level and institution-level data collected from institution records, government databases, admission test vendors, and student interviews. The primary analysis file, from which the study Data Analysis Systems (DASs) were constructed, contains data for about 62,000 students—50,000 undergraduates, 11,000 graduate students, and 1,200 first-professional students. Among the undergraduates, about 10,400 were confirmed to have received their baccalaureate degrees between July 1, 1999, and June 30, 2000.

The primary analysis file contains over 1,000 variables, most of which were derived from multiple NPSAS:2000 data sources. The NPSAS:2000 data sources, along with the corresponding numbers of study respondents for which data were obtained, appear in table 5-1. Additional students for whom data were obtained through database matching who do not appear on the analysis file, and therefore are not represented in the table (due to incomplete data).

Table 5-1.—Record counts from NPSAS:2000 data sources, by student type

Data source	Total[1]	B&B	Total undergraduate	Graduate/first-professional
CADE (institution records)[2]	59,280	9,940	48,010	11,280
CATI (student records)	44,490	10,400	35,540	8,960
CPS 1999–2000 (Central Processing System)	31,500	5,930	27,790	3,710
CPS 2000–2001 (Central Processing System)	18,330	1,530	16,030	2,300
NSLDS Pell grants (any year)	21,430	4,010	19,750	1,680
NSLDS loans (any year)	34,090	6,830	27,360	6,730
NSLDS Pell grants (NPSAS year)	13,550	2,430	13,490	60
NSLDS loans (NPSAS year)	21,410	4,650	18,140	3,270
ACT (years 1991–92 through 1999–2000)	16,540	5,340	10,070	1,130
SAT (years 1995 through 1999)	14,680	3,880	14,330	350

[1] The numbers presented here are limited to study respondents.

[2] The CADE data file contains all study respondents, which includes some CADE nonrespondents.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Throughout the data collection period, data were processed and examined for quality control purposes. Editing of student data began shortly after the start of CATI data collection. Anomalous values were investigated and resolved if necessary. As shown in table 5-2, numerous *interim* files were delivered to NCES for review, with each delivery including more of the study data.

Table 5-2.—Interim file deliveries

Date	Description
06/26/2000	840 completed interviews delivery – CATI, CADE, and CPS
07/31/2000	5,000 completed interviews delivery – CATI, CADE, and CPS
12/15/2000	30,000 completed interviews delivery – CATI, CADE, and CPS
01/25/2001	Preliminary Analysis file #1 – File containing CATI, CADE, CPS, preliminary weights, derived demographic variables, and derived financial aid data
02/20/2001	Preliminary Analysis file #2 – File containing CATI, CADE, CPS, institution data, near-final weights, NSLDS loan data, NSLDS Pell Grant data, derived demographic variables, and derived financial aid data

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Following completion of all study data collection, separate Data Analysis System files were created for undergraduate and graduate/first-professional students. The first study DAS, for undergraduate students only, was adjudicated and approved for public release in July 2001.

Complete data obtained through the NPSAS:2000 are available on restricted CD files and documented by the electronic codebook (ECB). These files and the ECB are available to researchers who have applied for and received authorization from NCES to access restricted research files. The NPSAS:2000 ECB contains information about the following files (to protect confidentiality, some numbers have been rounded):

- NPSAS Analysis File – Contains analytic variables derived from all NPSAS data sources as well as selected direct CATI variables for the 62,000 study respondents.
- CADE Data File – Contains raw data collected from institutional records for the 59,284 students with sufficient data to be considered CADE respondents, but also includes study respondents not considered CADE respondents. This file excludes any CADE "verbatim" variables such as responses to "Other, specify" items. These variables appear on the separate Verbatim Data File.
- CATI Student Data File – Contains student-level raw data collected from 44,500 students who responded to the student interview. This file excludes any CATI "verbatim" variables, which are on the Verbatim Data File.
- CATI School Data File – Contains institution data obtained from the student interview. It is a student-level file; however, a student can have more than one record in the file. There is a separate record for each postsecondary institution students

reported in CATI as somewhere they had attended during the study year (for up to 5 institutions).

- Institution File – Contains selected institution-level variables for the nearly 1,100 sampled institutions. Of those institutions, about 1,000 participated in NPSAS:2000. This file can be linked to the CATI Student Data File and CADE Data File by the IPEDS number.
- Coding Results File – Contains the verbatim text and resulting code for student major and (for employed students) industry and occupation. In addition, it contains the occupation code and corresponding verbatim text for any parent data obtained in CATI. This file also includes the field-of-study text string collected in CADE, along with the resulting code. Linkage to other data files is through the student ID.
- Verbatim Data File – Contains item-level records (i.e., one record per variable) for text variables collected in either CADE or CATI. It is possible to have multiple records per student or no records for a student.
- CATI Preload File – Contains the data preloaded into the student interview for the 44,500 CATI respondents.
- CPS 1999–2000 Data File – Contains data received from the Central Processing System for the 31,500 study respondents who matched to the 1999–2000 financial aid application files.
- CPS 2000–2001 Data File – Contains data received from the Central Processing System for the approximately 18,300 study respondents who matched to the 2000–2001 financial aid application files.
- NSLDS Pell Data File – Contains raw grant-level data received from the National Student Loan Data System for the 21,400 study respondents who received Pell Grants during the NPSAS year or prior years. This is a history file with separate records for each transaction in the Pell system.
- NSLDS Loans Data File – Contains raw loan-level data received from the National Student Loan Data System for the 34,100 study respondents who received loans during the NPSAS year or prior years. This is a history file with separate records for each transaction in the loan files.
- SAT Data File – Contains SAT data for the 14,700 study respondents who matched to the ETS SAT database for the 1995–1999 test years.
- ACT Data File – Contains ACT data for the 16,500 study respondents who matched to the ACT database for 1991–1992 through 1999–2000.
- Weights File – Contains all the sampling and analysis weights created for NPSAS:2000. There is a separate record for each study respondent.

5.2 Data Coding and Editing

The NPSAS:2000 data were coded and edited using procedures developed and implemented for previous NCES-sponsored studies. These coding and editing procedures were implemented for the NPSAS:2000 field test, and refined during the processing of NPSAS:2000 full-scale data.

The coding and editing procedures fell into two categories:

1. Online coding and editing performed during data collection, and
2. Post-data-collection data editing.

5.2.1 Online Coding and Editing

NPSAS:2000 included two major data collection systems: CADE and CATI. Both systems included edit checks to ensure data collected were within valid ranges. To the extent feasible, both systems incorporated across-item consistency edits. While more extensive consistency checks would have been technically possible, use of such edits was limited in order to prevent excessive interview and/or respondent burden.

The CATI system included online coding systems used for the collection of industry, occupation, and major field-of-study data. Additionally, the CATI system included a coding module used to obtain IPEDS information for postsecondary institutions that the student attended (other than the NPSAS institution from which they were sampled).

Below is a description of the online range and consistency checks, and the online coding systems, incorporated into the NPSAS:2000 CADE and CATI systems.

NPSAS:2000 CADE

- All fields in CADE accepted a code of –1, for the user to indicate the information was not available in the institution records.

- All state fields were checked against a master listing of 2-character state and country codes. Nonvalid entries were prohibited by the system.

- Phone numbers left blank triggered a warning to the user requesting that the information be provided. If the phone number was again left blank, it was automatically filled with –1 (data not available).

- Student date of birth entered by a CADE user was compared to values previously obtained from the Central Processing System. If the CPS date of birth was nonblank, but different from the value entered, a warning was issued and the user was asked to either keep the date of birth as entered or accept the CPS value.

- High school graduation year was compared to CADE date of birth. If student age at the time of high school graduation was calculated as 15 or younger, a warning asked the user to verify the high school graduation date.

- Student citizenship status entered by CADE users was compared to the value previously obtained from the CPS. If the CPS citizenship was nonblank, but different from the value entered, a warning was issued and the user was asked to either keep the value as entered or accept the CPS value.

- The student's military veteran status entered by CADE users was compared to the value previously obtained from the CPS. If the CPS veteran status was nonblank, but different from the value entered, a warning was issued and the user was asked to either keep the value as entered or accept the CPS value.

- Admissions test scores were collected for SAT, ACT, GRE, GMAT, MCAT, and LSAT. Soft-edit range checks were performed on all admissions test score variables.

- Values for credit hours enrolled that were outside of the normal range (according to the student's attendance status) triggered a CADE alert to the user. The user could keep the value of credit hours entered or change it.

- If the student was sampled as an undergraduate and was identified in CADE as being enrolled in a graduate or first-professional degree program, then the user received a warning. Similarly, if the student was sampled as a graduate student and the CADE user indicated the student was enrolled in an undergraduate degree program, the user also received a warning. The user had the option to keep the entered value or modify it.

- If the user selected a graduate or first-professional degree program but the institution was coded as having no graduate or first-professional levels based on IPEDS data and information from the Institutional Coordinator, the user received a warning. The user had the option to keep the entered value or modify it.

- If the user selected an undergraduate degree program but a graduate student level, an alert was issued. Similarly, if the user selected a graduate/first-professional program and an undergraduate student level, a warning appeared. In either case, the user could choose to modify the degree program or student level, or retain the entries as keyed.

- Grade-point average (GPA) entered for the student was compared to the GPA scale for the institution (previously obtained from the Institutional Coordinator). Incompatible score/scale combinations triggered a warning to the user. The user could accept what was entered or change it.

- If tuition for a specific term of enrollment was zero or less, or $15,000 or more, a warning message was triggered asking for verification from the user.

- If total tuition for the NPSAS year was $30,000 or higher, a warning message was triggered asking for verification from the user.

- Range checks were included on all financial aid award variables, with minimum and maximum values established based on published ranges in federal, state, or institution records.

- Graduate financial aid (e.g., a graduate assistantship) entered for a student sampled as an undergraduate triggered a warning message.

- If the CADE user indicated that the student received financial aid, but the total aid amount was $0, a warning was triggered. Total financial aid in excess of $30,000 for the NPSAS year also triggered a warning.

- Total cost of attendance budget (including tuition, housing, books, and technology) in excess of $25,000 triggered a warning to the user.

NPSAS:2000 CATI

- Range checks were applied to all numerical entries, such that only valid responses could be entered.

- Major field of study was entered by telephone interviewers as a text string. The coding software then standardized and analyzed the text and attempted to match the entry to a database. The interviewer was presented with one or more choices from which to select the appropriate entry in the coding dictionary, confirming entry with the student when multiple choices were presented.

- Student's occupation (if the student was employed) was coded by concatenating text strings entered for job title and job duties. The coding software then standardized and analyzed the text and attempted to match the entry to a database. The interviewer was presented with one or more choices from which to select the appropriate entry in the coding dictionary, confirming entry with the student when multiple choices were presented.

- Student's industry (if the student was employed) was entered as a text string. The coding software then standardized and analyzed the text and attempted to match the entry to a database. The interviewer was presented with one or more choices from which to select the appropriate entry in the coding dictionary, confirming entry with the student when multiple choices were presented.

- The postsecondary institution (other than the NPSAS institution) in which the student was enrolled during the NPSAS year was selected from a list, based on the respondent's report and the interviewer's entry of the city and state in which the institution was located. Upon selection, the name of the institution, as well as selected IPEDS variables (institutional level, control, tuition) was inserted into the CATI database.

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- A verification check was triggered if date of attendance and date of degree completion were in conflict.
- A verification check was triggered if the highest expected degree attainment from the NPSAS target institution was in conflict with the highest level of offering at that institution.
- A verification check was triggered if employer aid exceeded $50,000.
- A verification check was triggered if parental support (beyond tuition, fees, housing, books, etc.) exceeded $35,000.
- A verification check was triggered if hours worked per week while enrolled exceeded 60 hours.
- A verification check was triggered if earnings and income exceeded $1,000,000.
- A verification check was triggered if age at time of high school completion (as calculated based on date of birth and date entered) was 15 or younger or 24 or older.
- A verification check was triggered if age of parent was 100 or higher.

5.2.2 Post-Data-Collection Editing

Following data collection, the information collected in CADE and CATI was subjected to various checks and examinations. These checks were intended to confirm that the database reflected appropriate skip-pattern relationships, and also to insert special codes in the database to reflect the different types of missing data. There are a variety of explanations for missing data within individual data elements. For example, an item may not have been applicable to certain students, a respondent may have refused to answer a particular item, or a respondent may not have known the answer to the question. Table 5-3 lists the set of special codes used to assist analysts in understanding the nature of missing data associated with NPSAS:2000 data elements.

Table 5-3.—Description of missing data codes

Missing data code	Description
–1	Don't know (CATI variables) Data not available (CADE variables)
–2	Refused (CATI variables only)
–3	Legitimate skip (item was intentionally not collected because variable was not applicable to this student—CADE and CATI variables only)
–6	Bad data, out of range
–7	Item was not reached (abbreviated and partial CATI interviews)
–8	Item was not reached due to a CATI error

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

In some instances, additional across-item consistency checks were performed, although such checks were kept to a minimum since, without recontacting respondents, it was difficult to know which data item was the true source of the inconsistency.

Skip-pattern relationships in the database were examined by methodically running cross-tabulations between gate items and their associated nested items. In many instances, gate-nest relationships had multiple levels within the CADE or CATI instrument. That is, items nested within a gate question may themselves have been gate items for additional items. Therefore, validating the gate-nest relationships often required much iteration and many multiway cross-tabulations.

The data cleaning and editing process for the NPSAS data consisted of the following steps.

Step 1. Replaced blank or missing data with –9 for all variables in the CADE or CATI database. Ran one-way frequency listing of every variable in the database to confirm no missing or blank values remained. These same one-way frequencies revealed any out-of-range or outlier data values, which were investigated and checked for reasonableness against other data values. Example: hourly wages of .10, rather than 10.

Some standard variable recodes were performed during this step. All Yes/No CATI variables were recoded from 1=Yes/2=No to 1=Yes/0=No. RTI's Telephone Survey Department standard is to use 1 for Yes and 2 for No. However, 1/0 for Yes/No is more appropriate in the DAS and ECB.

Step 2. Using CADE or CATI source code as specifications, defined all gate-nest relationships in SAS code. Format of SAS statement should have been:

IF gate-variable EQUAL gate-value AND nest-variable EQUAL –9 THEN nest-variable EQUAL –3.

This code replaced –9's with –3's (the legitimate skip code) as appropriate. Two-way cross-tabulations between each gate-nest combination revealed either unusually high numbers of nonreplaced –9 codes, or unusually high numbers of "valid" responses in items that should have been skipped. Each such instance was investigated to ensure skip-pattern integrity. Typically, resolution involved reprogramming the gate-nest relationship to be consistent with the CADE or CATI instrument. Occasionally, this check revealed errors in the CADE or CATI source code.

Some logical imputations could occur during this step if nonnegative values were assigned to variables that were "missing" and whose values could have been implicitly determined (and were thereby skipped in CADE or CATI). For instance, if the student did not work while enrolled, then the amount earned should have been coded to $0 rather than –3 or –9. If a student indicated he or she was not disabled, then the "nested" disability items under the gate question were logically imputed to "no."

Step 3. Based on the section completion indicators, and/or the abbreviated interview indicator, replaced –9 and –3 with –7 (item not administered). This code, which was used for the first time in BPS:96/98, allows analysts to easily distinguish those items that were not administered to the respondent due to a partial interview or abbreviated interview versus items that were either skipped or left blank unintentionally.

Step 4. Regenerated and examined one-way frequencies on all categorical variables. Investigated high counts of –9. Checked new frequencies for out-of-range or outlier data items. Confirmed that responses in the one-way frequencies had corresponding entries in the VALCODES documentation file. Replaced any remaining –9 codes with the appropriate missing data code.

Step 5. Produced descriptive statistics for all continuous variables using SAS PROC UNIVARIATE. The SAS program first temporarily recoded all values less than zero (–1, –2, –3, –7, –8) to missing. Examined minimum, median, maximum, and mean to assess reasonableness of responses. Investigated anomalous data patterns and corrected as necessary.

5.3 Composite and Derived Variable Construction

Analytic variables were created by examining the data available for each student from the various data sources, establishing relative priorities of the data sources—on an item-by-item basis—and reconciling discrepancies within and between sources. In some cases the derived or composite variables were created by simply assigning a value from the available source of information given the highest priority. In other cases, raw interview items were recoded or otherwise summarized to create a derived variable. A listing of the set of analysis variables derived for NPSAS:2000 appears in appendix J. Specific details regarding the creation of each variable appear in the variable descriptions contained in the ECB and DAS.

5.4 Statistical Imputations

After the editing process (which included logical imputations), the remaining missing values for 23 analysis variables were imputed statistically. The imputations were performed primarily to reduce the bias of survey estimates caused by missing data. The imputed data also made the data complete and easier to analyze. Most of the variables were imputed using a weighted hot deck procedure.[1] Table 5-4 lists the variables in the order in which the missing data were imputed. The order of imputation addressed problems of multivariate association by using a series of univariate models fitted sequentially such that variables modeled earlier in the hierarchy had a chance to be included in the covariate set for subsequent models.

The weighted hot deck imputation procedure is best understood by first understanding unweighted hot deck imputation. The unweighted procedure partitions the sample into imputation classes based on auxiliary data available for both nonrespondents and respondents.

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[1] Cox, B.G. (1980). "The Weighted Sequential Hot Deck Imputation Procedure." *Proceedings of the American Statistical Association Section on Survey Research Methods*, pp. 721–726.

Within these classes, it is assumed the nonrespondents answer in a manner similar to the respondents.

Also, the data records are often sorted within the classes to place individuals who shared additional characteristics closer to each other. The procedure is implemented by sequentially processing the database and replacing missing responses with the response from the previous respondent within each imputation class.

Table 5-4.—Statistically imputed variables and the amount of data imputed

Statistically imputed variable	Study respondent data used in imputations	Percent under-graduates	Percent graduates/ first-professionals	Number statistically imputed	Percent statistically imputed
Age (Age)	All	0.5	1.0	343	0.6
Gender (Gender)	All	1.3	2.5	959	1.6
Citizenship (Citizen2)	All	3.3	6.5	2,408	3.9
Hispanic ethnicity (Hispanic)	All	5.0	5.1	3,087	5.0
Race[1]	All	8.1	7.7	4,968	8.0
Student marital status (Smarital)	All	7.8	9.6	5,032	8.1
Dependents indicator (Anydep)	All	14.2	17.7	9,179	14.9
Dependency status indicator – 2 levels (Depend)	All	8.0	0.0	3,969	6.4
Dependency status indicator – 3 levels (Depend2)	All	14.7	17.7	9,447	15.3
Fall attendance status (Attend)	Students enrolled in fall 1999 (51,200)	1.4	1.2	691	1.3
High school degree indicator and type (Hsdeg)	All	7.1	18.6	5,772	9.3
Local residence (Localres)	All	17.0	18.6	10,704	17.3
Number of dependents (Ndepend)	Independents with dependents (15,600)	3.3	19.8	4,673	30.0
Parents' marital status (Pmarital)	Dependents (26,200)	13.9	†	3,582	13.7
Parent family size (Pfamnum)	Dependents (26,200)	13.9	†	3,582	13.7
Parents' income (Depinc)[2]	Dependents reporting parents' income category (14,300)	49.2	†	6,901	48.3
	Dependents not imputed in 1^{st} stage (19,000)	19.1	†	3,602	19.0
High school graduation year (Hsgradyy)	Students with diploma/GED/cert. (61,100))	11.1	25.1	8,416	13.8
Student's income (Indepinc)	Independents (35,600)	23.9	26.1	8,761	24.6
Expected family contribution (Efc4)	All	42.8	65.0	29,086	47.1

†Not applicable.

[1] Race was an intermediary variable allowing for a full racial pattern of all possible multiple-listings of race. From this value, the variables R2WHITE, R2BLACK, R2ASIAN, R2ISLAND, and R2INDIAN were logically assigned. Appendix K provides further details.

[2] Of the approximately 26,200 dependent study respondents, 10,500 (40%) had missing values for parent income; however, parent income category was known for 6,900 of these students. Therefore, the imputation for parent income was performed in two stages. The first stage used a cross-classification of parent income category and parent marital status as the imputation classes among students who reported their parents' income category. The second stage imputed the remaining missing values among students who did not report their parents' income category. Appendix K provides details of the imputation for parents' income.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The unweighted hot deck procedure reduces nonresponse bias if the response distributions differed *across* the imputation classes. However, a potential consequence of not using the sample weights is that bias may remain in the survey estimates due to the weighted distribution of the imputed data *within* the classes being different from the weighted distribution of the respondent data.

The weighted hot deck procedure is an extension of the hot deck procedure that considers the weighted distribution. The procedure takes into account the unequal probabilities of selection by using the student weights to specify the expected number of times that a particular respondent's answer will be used to replace missing data. Use of these expected selection frequencies allows the weighted distribution of the affected data to replicate the weighted distribution of the respondent data. Hence, the weighted hot deck imputation was designed so that, within each imputation class, the weighted survey estimates based on the imputed data are equal in expectation to the weighted survey estimates based on the respondent data.

To implement the weighted hot deck procedure, imputation classes and sorting variables that were relevant for each item being imputed were defined. If more than one sorting variable was chosen, a serpentine sort was performed where the direction of the sort (ascending or descending) changed each time the value of a variable changed. The serpentine sort minimized the change in the student characteristics every time one of the variables changed its value.

The respondent data for five of the items being imputed was modeled using a Chi-squared automatic interaction detector (CHAID) analysis to determine the imputation classes. These items were

- parent income (imputed for dependent students only),
- student income (imputed for independent students only),
- student marital status,
- local residence, and
- dependents indicator.

A CHAID analysis was performed on these variables because of their importance to the study and the large number of candidate variables available to form imputation classes. Also, for the income variables, trying to define the best possible imputation classes was important due to the large amount of missing data.

The CHAID analysis divided the respondent data (of each of these six items) into segments that differed with respect to the item being imputed. The segmentation process first divided the data into groups based on categories of the most significant predictor of the item being imputed. It then split each of these groups into smaller subgroups based on other predictor variables. It also merged categories of a variable that were found insignificant. This splitting and merging process continued until no more statistically significant predictors were found (or until some other stopping rule was met). The imputation classes were then defined from the final CHAID segments.

The federal methodology Expected Family Contribution (EFC) was available for 53 percent of the students in the NPSAS:2000 sample. The major sources for the EFC were the 1999-2000 Pell grant records(21 percent) and the student financial aid application records reported in the federal central processing system (CPS) for the 1999-2000 academic year (28 percent). In 5 percent of the cases neither of these was available, but an EFC was reported in CADE by the institution. For Pell Grant recipients, the EFC from the Pell record was always used.

The EFC was imputed for 47 percent of the 61,767 students on the file. Imputation regression equations were developed separately for the three categories of student dependency that have separate EFC formula types, using the EFC's recorded in the 1999-2000 CPS student records. EFC's were imputed for 40 percent of the dependent students, 55 percent of the independent students without dependents, and 50 percent of the independent students with dependents. More details on the EFC imputation are provided in Appendix K.

Appendix K presents the imputation classes and sorting variables used for all of the variables imputed by the hot deck approach, as well as other imputation procedures that were used. This appendix also includes a table showing the distribution of variables before and after imputation. When characteristics of nonrespondents significantly differed from characteristics of respondents and the imputation procedure successfully accounted for these differences, the distribution after imputation will be different from the distribution before imputation.

Chapter 6
Weighting and Variance Estimation

Statistical analysis weights were computed for two sets of respondents: CATI respondents and study respondents. (They were not computed separately for CADE respondents because it was expected that analysis of any items collected in CADE would be based on the larger set of study respondents.) The statistical analysis weights compensated for unequal sampling rates and differential propensities to respond. CATI, CADE, and study respondents were defined as follows:

CATI respondent: any sample member who

- completed at least Section A of the CATI interview or
- completed an abbreviated (telephone or paper copy) interview.

CADE respondent: any sample member for whom

- the CADE financial aid gate question was answered, AND
- the CADE enrollment section had some enrollment data provided, AND
- the CADE student characteristics section had at least one valid response for the set of items: date of birth; marital status; race; and sex. If the case was a CPS match, it was considered it to have successfully met this criterion.

Study respondent: any sample member who was

- a CATI respondent and/or
- a CADE respondent.

6.1 Study and CATI Weight Components

Weights were computed first for study respondents (STUDYWT) as the product of the following 13 weight components:

(1) Adjustment for Field Test Sampling (WT1)
(2) Institution Sampling Weight (WT2)
(3) Adjustment for Institution Multiplicity (WT3)
(4) Institution Poststratification Adjustment (WT4)

(5) Adjustment for Institution Nonresponse (WT5)
(6) Student Sampling Weight (WT6)
(7) Student Subsampling Weight (WT7)
(8) Adjustment for Students Never Sent to CATI (WT8)
(9) Adjustment for Student Multiplicity (WT9)
(10) Adjustment for Unknown Eligibility Status (WT10)
(11) Weight Trimming Adjustment (WT11)
(12) Adjustment for Study Nonresponse (WT12)
(13) Poststratification Adjustment for Study Respondents (WT13).

These study weights were used as the base for CATI weights. The CATI weights (CATIWT) were the product of the study weights and the following four additional weight components:

(14) Adjustment for Not Locating Students (WT14)
(15) Adjustment for CATI Refusals (WT15)
(16) Adjustment for Other CATI Nonresponse (WT16)
(17) Poststratification Adjustment for CATI Respondents (WT17)

The study weights and the CATI weights are the two statistical analysis weights on the analysis files. Each weight component is described below and represents either a probability of selection or a weight adjustment. The weight adjustments included nonresponse and poststratification adjustments to compensate for potential nonresponse bias and frame errors. All nonresponse adjustment and poststratification models were fit using RTI's proprietary generalized exponential models (GEMs),[1] which are similar to logistic models using bounds for adjustment factors. Also, multiplicity and trimming adjustments were performed. Each of these 17 weighting components is described in more detail below.

(1) Adjustment for Field Test Sampling (WT1)

The NPSAS field test sample was selected using stratified simple random sampling, so these sample institutions were deleted from the full-scale institution sampling frame without compromising population coverage. Each institution on the sampling frame received a first-stage sampling weight based on the probability that it was *not* selected for the field test.

The institutions in stratum *r* on the institution sampling frame were partitioned as follows. Let j = 1, 2, …, $J_1(r)$ represent those institutions not on the frame from which the field test sample was selected (near certainty and new IPEDS 1998–99 institutions).

- Let $j=J_1(r)+1$, $J_1(r)+2$, …, $J_2(r)$ represent those that were on the frame for the field test but were not selected.
- Let $j=J_2(r)+1$, $J_2(r)+2$, …, $J(r)$ represent the institutions in the simple random sample of $n_f(r)$ institutions selected for the field test.

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[1] R.E Folsom. and A.C. Singh (2000). "The Generalized Exponential Model for Sampling Weight Calibration for Extreme Values, Nonresponse, and Poststratification." *Proceedings of the Section on Survey Research Methods of the American Statistical Association*, pp. 598–603.

The first sampling weight component for the full-scale study was the reciprocal of the probability of *not* being selected for the field test, i.e., for the *j*-th institution in stratum *r* it was

$$W_{1r}(j) = \begin{cases} 1 & \text{for } j = 1, \dots, J_1(r) \\ \dfrac{J(r) - J_1(r)}{J(r) - J_1(r) - n_f(r)} & \text{for } j = J_1(r) + 1, \dots, J_2(r) \end{cases}$$

(2) Institution Sampling Weight (WT2)

The sampling weight for each sample institution was the reciprocal of its probability of selection. As noted earlier in chapter 2, the probability of selection for institution *i* was

$$\pi_r(i) = \begin{cases} \dfrac{n_r S_r(i)}{S_r(+)} & \text{for non-certainty selections} \\ 1 & \text{for certainty selections.} \end{cases}$$

Therefore, the institution sampling weight was assigned as follows:

$WT2 = 1 / \pi_r(i)$.

(3) Adjustment for Institution Multiplicity (WT3)

During institution recruitment, six sample schools that had two or three records listed on the IPEDS frame were found. In most cases, it was caused by schools that had recently merged. If two records were sampled, then one record was retained for tracking survey results and the other record was classified as ineligible.

When an institution had two chances of selection, a multiplicity adjustment was performed by first estimating, as if the selections were independent, the probability that either record could be selected:

$P(A \text{ or } B) = P(A) + P(B) - P(A)P(B)$.

Then, the new sampling weight was calculated as the reciprocal of this probability:

NEW_WT2 = 1 / P(A or B).

When an institution had three chances of selection, a multiplicity adjustment was performed by first estimating the probability that any record could be selected:

$P(A \text{ or } B \text{ or } C) = (P(A) + P(B) + P(C)) - (P(A)P(B) + P(A)P(C) + P(B)P(C) + P(A)P(B)P(C))$.

Then, the new sampling weight was calculated as the reciprocal of this probability:

NEW_WT2 = 1 / P(A or B or C).

Finally, the multiplicity adjustment factor was derived by dividing the new sampling weight by the old sampling weight,

WT3 = NEW_WT2 / WT2,

for the institutions with positive multiplicity, and setting it to unity (1.00) for all other institutions. Hence, the product of WT2 and WT3 equals NEW_WT2 for the institutions with positive multiplicity and equals WT2 for all other institutions.

(4) Institution Poststratification Adjustment (WT4)

To ensure population coverage, the sampling weights were adjusted to control totals for enrollment using a weighting class adjustment. Institution type and size were used to define the weighting classes. The weight adjustment factor was the ratio of the population enrollment to the sample total of the weight multiplied by the enrollment within weighting classes:

$$PS_c = \frac{\sum_{i \varepsilon Pop(c)} E_i}{\sum_{i \varepsilon Samp(c)} W_i \bullet E_i}$$

where

c = the weighting class,

W_i = the cumulative institution weight (WT1 • WT2 • WT3), and

E_i = the institution's enrollment from the sampling frame.

Table 6-1 presents the weight adjustment factors for each weighting class.

Table 6-1.—Weight adjustment factors for institution poststratification and nonresponse

Weighting class (institution sector and size[1])	Number of respondents	Weighted response rate	Post-stratification weight adjustment factor (WT4)	Nonresponse weight adjustment factor (WT5)
Total	1,082	94.0	†	†
Public less than 2-year	34	89.9	1.10	1.11
Public 2-year, small	99	97.9	1.08	1.02
Public 2-year, large	99	90.1	1.07	1.11
Public 4-year non-doctorate-granting, small	63	95.1	1.13	1.05
Public 4-year non-doctorate-granting, large	64	98.4	0.99	1.02
Public 4-year doctorate-granting, small	110	92.8	1.09	1.08
Public 4-year doctorate-granting, large	110	96.1	1.04	1.04
Private not-for-profit less-than-4-year	35	93.7	1.06	1.07
Private not-for-profit 4-year, non-doctorate-granting, small	86	89.4	1.04	1.12
Private not-for-profit 4-year, non-doctorate-granting, large	87	89.0	1.15	1.12
Private not-for-profit 4-year doctorate-granting, small	84	92.9	1.20	1.08
Private not-for-profit 4-year doctorate-granting, large	84	93.2	1.07	1.07
Private for-profit 2-year, small	38	91.7	1.26	1.09
Private for-profit 2-year, large	39	86.5	1.09	1.16
Private for-profit 2-year-or-more	50	95.8	1.03	1.04

†Not applicable.

[1] Size for poststratification weighting classes was based on the median enrollment within sector for the institutions on the sampling frame. Size for nonresponse weighting classes was based on the median enrollment within the sector for the sample institutions. Three of the sectors had too few responding institutions to split by size.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

(5) Adjustment for Institution Nonresponse (WT5)

For weighting purposes, a school was considered a responding school if it provided an enrollment list and if at least one student from the institution was a study respondent. A weighting class adjustment was performed to compensate for nonresponding institutions, using institution type and size as the weighting classes. The calculated response rates were enhanced by multiplying the institution's weight by enrollment:

$$R_c = \frac{\sum_{i \in Resp(c)} E_i}{\sum_{i \in Elig(c)} W_i \bullet E_i}$$

where

c = the weighting class,

W_i = the cumulative institution weight (WT1 • WT2 • WT3 • WT4), and

E_i = the institution's enrollment.

The weight adjustment was then the reciprocal of this response rate. This enhancement forced the estimated total enrollment to be the same for the responding institutions as it was for the eligible institutions, and thus for the population since we poststratified to population totals. Table 6-1 presents the response rates and the resulting adjustment factors by institution type and size.

(6) Student Sampling Weight (WT6)

The overall student sampling strata were defined by crossing the institution sampling strata with the student strata within institutions. The overall sampling rates for these sampling strata can be found in appendix G. The sample students were systematically selected from the enrollment lists at institution-specific rates that were inversely proportional to the institution's probability of selection. Specifically, the sampling rate for student stratum *s* within institution *i* was calculated as the overall sampling rate divided by the institution's probability of selection, or

$$f_{s|i} = \frac{f_s}{\pi_r(i)},$$

where

f_s = the overall student sampling rate, and

$\pi_r(i)$ = the institution's probability of selection.

As discussed in appendix G, the institution-specific rates were designed to obtain the desired sample sizes and achieve nearly equal weights within the overall student strata.

If the institution's enrollment list was larger than expected based on the IPEDS data, the preloaded student sampling rates would yield larger-than-expected sample sizes. Likewise, if the enrollment list was smaller than expected, the sampling rates would yield smaller-than-expected sample sizes. To maintain control on the sample sizes, the sampling rates were adjusted, when necessary, so that the number of students selected did not exceed by more than 50 students the expected sample size of the institution based on the IPEDS data. A minimum sample size constraint of 40 students also was imposed so that at least 30 respondents from each participating institution could be expected.

The student sampling weight then was calculated as the reciprocal of the institution-specific student sampling rates, or

$$WT6 = 1 / f_{s|i}.$$

(7) Student Subsampling Weight (WT7)

When schools provided hard-copy lists for student sampling, they often did not provide separate lists by strata (e.g., undergraduate and graduate students were on the same list). When that happened, the combined list was sampled at the highest of the sampling rates for the strata contained within the list. After the original sample was keyed, strata with the lower sampling rates were then subsampled to achieve the desired sampling rates. The student subsampling weight adjustment factor, WT7, was the reciprocal of this subsampling rate. This weight factor was unity (1.00) for most students because this subsampling was not necessary for most institutions.

(8) Adjustment for Students Never Sent to CATI (WT8)

To speed up data collection, some students were sent to CATI before CADE data were abstracted from the institution. This could be done when locating information or a Social Security number was available for the student from the enrollment file or from CPS. However, potentially eligible students were never sent to CATI if such information was unavailable or if the institution refused to provide CADE data before the decision to send the institution's students to CATI.[2] To adjust for students from responding institutions who were never sent to CATI, a weighting class adjustment was performed using the 22 institution strata as weighting classes. Table 6-2 presents the weight adjustment factors.

(9) Adjustment for Student Multiplicity (WT9)

Students who attended more than one eligible institution during the 1999–2000 academic year had multiple chances of being selected. That is, they could have been selected from any of the institutions they attended. Therefore, these students had a higher probability of being selected than was represented in their sampling weight. This multiplicity was adjusted by dividing their sampling weight by the number of institutions attended that were eligible for sample selection. Specifically, the student multiplicity weight adjustment factor was defined as

$$WT9 = 1 / M,$$

where M is the multiplicity, or number of institutions attended. The multiplicity was determined from the CATI interview, the Pell Grant payment file, and the National Student Loan Data System. Unless there was evidence to the contrary, the student multiplicity was presumed to be unity (1.00).

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[2] If the institution had no study respondents, then the institution was considered a nonrespondent, which was handled through the institution nonresponse adjustment.

Table 6-2.—Weight adjustment factors for students never sent to CATI

Weighting class (institution stratum)	Number sent to CATI	Weight adjustment factor (WT8)
Total	69,595	†
Public less than 2-year	1,525	1.00
Public 2-year	10,663	1.00
Public 4-year non-doctorate-granting		
Bachelor's high education	302	1.00
Bachelor's low education	1,026	1.00
Master's high education	2,087	1.00
Master's low education	6,463	1.00
Public 4-year doctorate-granting		
Doctorate-granting high education	2,249	1.00
Doctorate-granting low education	5,631	1.00
First-professional high education	3,993	1.00
First-professional low education	9,653	1.02
Private not-for-profit less-than-2-year	563	1.02
Private not-for-profit 2-year	1,175	1.00
Private not-for-profit 4-year, non-doctorate-granting		
Bachelor's high education	889	1.00
Bachelor's low education	1,610	1.00
Master's high education	1,567	1.02
Master's low education	3,826	1.01
Private not-for-profit 4-year doctorate-granting		
Doctorate-granting high education	741	1.00
Doctorate-granting low education	1,386	1.00
First-professional high education	3,248	1.00
First-professional low education	4,010	1.01
Private for-profit less-than-2-year	4,399	1.02
Private for-profit 2-year or more	2,589	1.00

†Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

(10) Adjustment for Unknown Eligibility Status (WT10)

Some students were determined to be ineligible while the student record data were being abstracted using CADE. We did not attempt to interview these students, and they received a weight of zero. Students were sent to CATI if they were not classified as ineligible, and their final eligibility status was then determined from the CATI interviews. However, for the students whom RTI staff were unable to contact, the final eligibility status could not be determined. These students were treated as eligible, their weights were adjusted to compensate for the small portion of students who were actually ineligible (as described below), and they were included in the analysis files.

Weighting classes were defined by the cross of institution type and the students' matching status to financial aid files (CPS, Pell, and loan). Table 6-3 presents the weight adjustment factors applied to the students with unknown eligibility. These weight adjustment factors were simply the eligibility rate estimated among students with known eligibility status. For the eligible students, the weight adjustment factor was set equal to one.

(11) Weight Trimming Adjustment (WT11)

Some of the student sampling weights were initially large because student sampling rates were fixed and sometimes very small. Also, the cumulative effect of the adjustment factors could cause these large weights to increase further. These very large weights could cause excessive weight variation, which results in inflated sampling variances and mean square errors.

The mean square error of an estimate, $\hat{\theta}$, is defined as the expected value of the squared total error, or

$$\mathrm{MSE}\,(\hat{\theta}) = \mathrm{E}\,(\theta - \hat{\theta})^2 .$$

This can be rewritten as

$$\mathrm{MSE}\,(\hat{\theta}) = \mathrm{E}[(\hat{\theta} - \mathrm{E}(\theta))]^2 + [\mathrm{E}(\hat{\theta}) - (\theta)]^2 ,$$

where the first term is the sampling variance and the second term is the bias squared.

It was usually possible, by truncating some of the largest weights and smoothing (distributing) the truncated portions over all the weights, to reduce the mean square error by substantially reducing the variance and slightly increasing the bias in the weights. However, the subsequent nonresponse and poststratification adjustments reduced the bias.

To evaluate the weight variation, the unequal weighting effects on the variance were computed for the ultimate strata defined by the cross of institution type and student type, as follows:

$$\mathrm{UWE} = n\Sigma w^2 / (\Sigma w)^2.$$

When the large sampling weights and the cumulative effect of the weight adjustment factors caused the unequal weighting effects to be unreasonably large, an upper limit was established for truncation of the largest weights. To distribute the truncated portions, a smoothing adjustment ratio was calculated as the sum of the original weights over the sum of the truncated weights for each class, as follows.

Table 6-3.—Weight adjustment factors for unknown student eligibility status

Weighting class (institution level, by student type, by matching status to financial aid files)	Number adjusted for unknown eligibility	Weight adjustment factor (WT10)
Total	12,543	†
Public less than 2-year		
Matched Pell or Stafford file	81	0.85
Matched CPS file only	32	0.80
No matches	177	0.57
Public 2-year		
Matched Pell or Stafford file	492	0.93
Matched CPS file only	222	0.85
No matches	1,319	0.79
Public 4-year non-doctorate-granting		
Undergraduates: Matched Pell or Stafford file	566	0.97
Matched CPS file only	112	0.90
No matches	662	0.85
Graduates: Matched Pell or Stafford file	24	0.99
Matched CPS file only	4	0.87
No matches	132	0.88
Public 4-year doctorate-granting		
Undergraduates: Matched Pell or Stafford file	1,092	0.98
Matched CPS file only	219	0.93
No matches	1,399	0.91
Graduates: Matched Pell or Stafford file	220	0.99
Matched CPS file only	19	0.87
No matches	681	0.91
Private not-for-profit less-than-4-year		
Matched Pell or Stafford file	264	0.95
Matched CPS file only	36	0.85
No matches	132	0.70
Private not-for-profit 4-year, non-doctorate-granting		
Undergraduates: Matched Pell or Stafford file	577	0.97
Matched CPS file only	91	0.87
No matches	447	0.85
Graduates: Matched Pell or Stafford file	40	0.95
Matched CPS file only	9	0.93
No matches	97	0.92
Private not-for-profit 4-year doctorate-granting		
Undergraduates: Matched Pell or Stafford file	405	0.98
Matched CPS file only	71	0.82
No matches	430	0.85
Graduates: Matched Pell or Stafford file	199	0.99
Matched CPS file only	25	0.84
No matches	459	0.85

Table 6-3.—Weight adjustment factors for unknown student eligibility status —Continued

Weighting class (institution level, by student type, by matching status to financial aid files)	Number adjusted for unknown eligibility	Weight adjustment factor (WT10)
Private for-profit less-than-2-year	874	0.94
Matched Pell or Stafford file	139	0.68
Matched CPS file only	200	0.76
No matches		
Private for-profit 2-year		
Matched Pell or Stafford file	225	0.94
Matched CPS file only	29	0.64
No matches	64	0.60
Private for-profit 4-year		
Undergraduates: Matched Pell or Stafford file	102	0.97
Matched CPS file only	11	0.88
No matches	110	0.79
Graduates: Matched Pell or Stafford file	18	0.99
Matched CPS file only/ No matches combined	36	0.96

†Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

$$S_c = \frac{\sum_{i \in c} W_O(i)}{\sum_{i \in c} W_T(i)}$$

where

$W_O(I)$ = the original weight (WT1•WT2•...WT10), and

$W_T(I)$ = the truncated weight (the minimum of the original weight and the upper limit).

The truncation and smoothing steps were then combined into one adjustment factor by defining the weight component as

$$WT13 = \frac{W_T(i)}{W_O(i)} \bullet S_c .$$

(12) Adjustment for Study Nonresponse (WT12)

The first type of adjustment for student nonresponse was adjustment for study nonresponse, i.e., insufficient CADE or CATI data. These weight adjustments were made to compensate for the potential study nonresponse bias. Adjustment factors were inverses of predicted response propensities derived from a logistic regression model. The logistic procedure, developed by Folsom,[3] adjusts the weights of respondents so that the adjusted weight sums of respondents reproduce the unadjusted weight sums of respondents and nonrespondents for the categorical predictor variables included in the model. To avoid excessive weight variation, the procedure also constrains the adjustment factors to be within specified lower and upper bounds.

Candidate predictor variables were chosen that were thought to be predictive of response status and were nonmissing for both study respondents and nonrespondents. The candidate predictor variables included

- institution type,
- Region,
- institution enrollment from IPEDS IC file (categorical),
- student type,
- Social Security number indicator,
- CPS record indicator,
- Pell grant status,
- Pell grant amount (categorical),
- Stafford Loan status,
- Stafford Loan amount (categorical), and
- federal aid receipt status.

To detect important interactions for the logistic models, a Chi-squared automatic interaction detector analysis was performed on the predictor variables. The CHAID analysis divided the data into segments that differed with respect to the response variable, study response. The segmentation process first found the variable that was the most significant predictor of response within each category or collapsed set of categories of this variable, it looked for the next most significant predictor of response. This process continued until no more statistically significant predictors were found (or until some other stopping rule was met). The interactions from the final CHAID segments were then defined from the final nesting of the variables.

The interaction segments and all the main effect variables were then subjected to variable screening in the logistic procedure. Variables significant at the 15 percent level were retained, with the exception of institution type and student type, which were retained regardless of their significance.

From the logistic models, the predicted probability that student j was a study respondent was given by

$$\hat{p}_{rj} = \left[1 + \exp(-x_j \beta)\right]^{-1},$$

where

$\mathbf{x}_j$ = the row vector of predictor variables, and

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[3] Folsom, R.E. (1991). "Exponential and Logistic Weight Adjustments for Sampling and Nonresponse Error Reduction." *Proceedings of the Social Statistics Section of the American Statistical Association*, pp. 197–202.

B = the column vector of regression coefficients.

The logistic adjustment factor is then simply the reciprocal of this predicted probability of being a student respondent, or

$$\mathrm{WT12} = 1/\hat{p}_{rj} .$$

Table 6-4 presents the final predictor variables used in the logistic model to adjust the weights and the average weight adjustment factors resulting from these variables. The weight adjustment factors met the following constraints:

- minimum: 1.00
- median: 1.03
- maximum: 1.71.

(13) Poststratification Adjustment for Study Respondents (WT13)

To ensure population coverage, the study weights were further adjusted to control totals with a generalized raking procedure that derived adjustment factors from an exponential regression model.[4] The algorithm for this procedure was similar to the algorithm used in the logistic procedure for the nonresponse adjustments.

Control totals were established for annual student enrollment, by institution type; total number of Pell Grants awarded; amount of Pell Grants awarded, by institution type; and amount of Stafford Loans awarded, by institution type.

The annual enrollment control totals were estimated by multiplying the "known" fall enrollment totals from the 1997–98 Fall Enrollment Survey[5] by the estimated ratio (based on NPSAS:2000 data) of annual enrollment over fall enrollment. Specifically, the annual enrollment control totals were computed as

$$A_{control} = \frac{A_{npsas}}{F_{npsas}} \bullet F_{known} ,$$

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[4] R.E. Folsom. "Exponential and Logistic Weight Adjustments for Sampling and Nonresponse Error Reduction." *Proceedings of the Social Statistics Section of the American Statistical Association,* 1991, 197–202.

[5] The 1997–98 Fall Enrollment Survey was used to estimate fall enrollment since that is what was available on the sampling frame. The IPEDS fall 1999 enrollments were not imputed, so they would not provide reliable estimates. It was determined that using fall 1997 estimates was sufficient since fall enrollments did not change significantly over this period.

Table 6-4.—Average weight adjustment factors from logistic model used to adjust study weights for student nonresponse

Logistic model predictor variables	Number of respondents	Weighted response rate	Average weight adjustment factor (WT12)
Total	61,770	97.1	1.03
Institutional sector			
Public less-than-2-year	1,060	95.4	1.04
Public 2-year	8,930	97.2	1.03
Public 4-year non-doctorate-granting	8,950	97.0	1.03
Public 4-year doctorate-granting	19,730	97.1	1.03
Private not-for-profit 2-year or less	1,510	98.4	1.02
Private not-for-profit 4-year, non-doctorate-granting	7,190	97.2	1.03
Private not-for-profit 4-year doctorate-granting	8,410	97.4	1.03
Private for-profit less-than-2-year	3,630	93.2	1.07
Private for-profit 2-year	1,170	97.7	1.02
Private for-profit 4-year	1,170	99.6	1.00
Region			
New England	3,580	98.7	1.01
Great Lakes	10,000	98.7	1.01
Plains	4,660	98.7	1.01
Rocky Mountains	2,460	99.8	1.00
AK, HI, PR	1,660	96.7	1.02
Other	39,410	96.3	1.04
Student type			
Baccalaureate, business major	1,330	96.0	1.04
Baccalaureate, other major	13,710	97.8	1.02
Other undergraduate	35,510	97.2	1.03
Master's	5,370	97.4	1.03
Doctor's	3,450	94.2	1.06
Other graduate	1,190	96.6	1.03
First-professional	1,200	95.5	1.05
SSN preloaded			
Yes	59,750	97.2	1.03
No	2,020	94.8	1.05
CHAID segments			
1 = No CPS match, SSN not preloaded, New England	110	96.8	1.04
2 = No CPS match, SSN not preloaded, Mid East	380	94.2	1.07
3 = No CPS match, SSN not preloaded, Great Lakes, Plains	280	99.5	1.01
4 = No CPS match, SSN not preloaded, Southeast	210	86.7	1.16
5 = No CPS match, SSN not preloaded, Southwest, Rocky Mountains, Far West	280	98.6	1.02
6 = No CPS match, SSN not preloaded, AK, HI, PR	50	61.3	1.63
7 = No CPS match, SSN preloaded, ENTOTCAT=3,4	17,170	96.7	1.04
8 = CPS match, AK, HI, PR, enrollment <= 3,267	520	100.0	1.00
9 = CPS match, New England, 3267 < enrollment <24,120	1,000	100.0	1.00
10 = CPS match, Rocky Mountains, 3267 < enrollment <24,120	590	100.0	1.00
11 = CPS match, AK, HI, PR, 3267 < enrollment <24,120	620	100.0	1.00
12 = CPS match, New England, enrollment > 24,120	200	100.0	1.00
13 = CPS match, Plains, enrollment > 24,120	400	99.9	1.00
14 = CPS match, Southeast, enrollment > 24,120	1,270	90.1	1.11
15 = CPS match, Southwest, Rocky Mountains, Far West, AK, HI, PR, enrollment > 24,120	2,480	99.7	1.00
16 = Other	36,210	97.4	1.03

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

where

$A_{control}$ = annual enrollment control total,

A_{npsas} = annual enrollment estimated from NPSAS:2000,

F_{npsas} = fall enrollment estimated from NPSAS:2000, and

F_{known} = fall enrollment from the 1997–98 Fall Enrollment Survey.

The exponential adjustment satisfies the following constraints:

$$\sum_j W_j \lambda_j \mathbf{x}_j^T = \eta_O^T \ ,$$

where

W_j = the cumulative weight (WT1•WT2•....•WT12),

λ_j = $\exp(\alpha + \mathbf{x}_j B)$,

α = model intercept

β = vector of parameters that specify the nature of the relationship between λ_j and $\mathbf{x}_j$

$\mathbf{x}_j$ = the vector of regressors associated with the domains to be controlled, and

η_o = the set of control totals.

The exponential adjustment factor for student *j* is then simply

$\text{WT13} = \lambda_j$.

Tables 6-5 and 6-6 present the average weight adjustment factor for each variable in the model. Table 6-5 presents the variables associated with the student enrollment control totals and the average weight adjustment factors by these variables. Similarly, table 6-6 presents the variables associated with the Pell Grant and Stafford Loan control totals and the average weight adjustment factors. The weight adjustment factors from the exponential adjustment are summarized below, and met the following constraints:

- minimum: 0.53
- median: 0.99
- maximum: 2.36.

Table 6-5.—Average weight adjustment factors from exponential models for poststratifying to student enrollment totals

Exponential model variable	Fall enrollment from 1997–1998 fall enrollment survey	Ratio of NPSAS:2000 annual over fall enrollment	Control total for annual enrollment[1]	Average weight adjustment factor (WT13)	Average weight adjustment factor (WT17)
Student type					
Undergraduate	†	†	16,538,472	†	1.00
Graduate	†	†	2,332,233	†	1.00
First-professional	†	†	325,301	†	1.00
Institutional sector					
Public less-than-2-year	84,498	1.33	112,533	2.08	0.99
Public 2-year	5,378,376	1.41	7,568,455	1.09	1.00
Public 4-year non-doctorate-granting	1,935,294	1.19	2,307,422	1.00	1.00
Public 4-year doctorate-granting	4,011,997	1.16	4,657,446	1.01	1.00
Private not-for-profit 2-year or less	104,077	1.30	135,742	1.25	1.00
Private not-for-profit 4-year, non-doctorate-granting	1,478,483	1.18	1,738,463	0.92	1.00
Private not-for-profit 4-year doctorate-granting	1,546,883	1.15	1,780,664	0.94	1.00
Private for-profit less-than-2-year	164,123	2.01	329,751	0.92	1.01
Private for-profit 2-year	227,659	1.40	318,488	0.89	1.01
Private for-profit 4-year	190,371	1.30	247,043	0.75	1.02

† Not applicable.

[1] Control total is not the exact product of the fall enrollment from 1995–1996 fall enrollment survey and the ratio of NPSAS:2000 annual over fall enrollment, due to rounding of the ratio.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

After this weight adjustment was performed, the final study weights (STUDYWT) were computed as the product of the 13 weight components and then rounded to the nearest integer.

(14) Adjustment for Not Locating Students (WT14)

The final (unrounded) study weights were further adjusted to produce the CATI analysis weights. The adjustment for CATI nonresponse was performed in three stages because the predictors of response propensity were potentially different at each stage:

- inability to locate the student,
- refusal to be interviewed, and
- other non-interview.

Using these three stages of nonresponse adjustment achieved greater reduction in nonresponse bias to the extent that different variables were significant predictors of response propensity at each stage.

Table 6-6.—Average weight adjustment factors from exponential model for poststratifying to Pell grant and Stafford loan control totals

Exponential model variable	Control total	Average weight adjustment factor (WT13)	Average weight adjustment factor (WT17)
Pell grants			
Total *number* awarded	3,759,000	1.00	1.01
Total *dollars* awarded			
Public 4-year	2,771,723,587	1.01	1.01
Public 2-year	2,156,165,970	1.15	0.98
Private not-for-profit 4-year	1,223,434,200	0.87	1.01
Private not-for-profit 2-year	103,619,419	1.08	1.02
Private for-profit	927,331,131	0.98	1.03
Stafford Loans			
Total *dollars* awarded – study weights			
Undergraduate			
Public 4-year	9,812,004,437	1.06	†
Public 2-year	1,594,864,801	1.03	†
Private not-for-profit 4-year	6,084,095,282	0.98	†
Private not-for-profit 2-year	201,342,429	1.04	†
Private for-profit	3,269,427,995	1.08	†
Graduate/first-professional			
Public 4-year	4,238,972,034	1.04	†
Public 2-year	5,071,137	0.61	†
Private not-for-profit 4-year	6,285,676,620	1.03	†
Private not-for-profit 2-year	†	†	†
Private for-profit	377,462,273	0.93	†
Total *dollars* awarded — CATI weights			
Public 4-year	14,050,976,471	†	1.00
Public 2-year	1,599,935,938	†	0.96
Private not-for-profit 4-year	12,369,771,902	†	1.01
Private not-for-profit 2-year	201,342,429	†	0.98
Private for-profit	3,646,890,268	†	0.99

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The same logistic regression procedure used to adjust for study nonresponse (WT12) was again used to adjust for inability to locate (contact) the student. Candidate predictor variables were chosen that were thought to be predictive of CATI nonresponse and were missing for 5 percent or fewer of all study respondents. The candidate predictor variables included

- age (categorical),
- any aid receipt indicator,
- fall attendance status,
- citizenship,
- CPS record indicator,
- institution enrollment from IPEDS IC file (categorical),
- fall enrollment status,
- federal aid receipt indicator,
- sex,

- Hispanic indicator,
- institutional aid receipt indicator,
- OBE region,
- student date of birth preloaded into CATI,
- parent data preloaded into CATI,
- total number of phone numbers obtained for student,
- Social Security number indicator,
- Pell Grant status,
- Pell Grant amount (categorical),
- Stafford Loan status,
- Stafford Loan amount (categorical),
- institution type,
- state aid receipt indicator,
- number of institutions attended in 1999–2000, and
- student type.

Other variables that were considered but not included because they were missing for more than 5 percent of all study respondents included

- dependents indicator,
- dependency status,
- number of dependents,
- full-year attendance status,
- high school degree indicator and type,
- high school graduation year,
- local residence,
- parents' income,
- parents' family size,
- parent's marital status,
- student's marital status,
- student's income, and
- race.

As in the study nonresponse adjustment, a CHAID analysis was performed on the predictor variables to detect important interactions. The resulting segment interactions and all the main effect variables were then subjected to variable screening in the logistic procedure. Variables significant at the 15 percent significance level were retained, with the exception of institution type, student type, Pell Grant status, and Stafford Loan status, which were retained regardless of the significance level.

Table 6-7 presents the final predictor variables used in the logistic model to adjust the CATI weights and the average weight adjustment factors resulting from these variables. As in the study nonresponse adjustment, the weighting adjustment factor for student *j* was the reciprocal of the predicted response probability, or

$$\text{WT14} = 1/\hat{p}_{rj} \ .$$

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Table 6-7.—Average weight adjustment factors from logistic model used to adjust CATI weights for student location nonresponse

Logistic model predictor variables	Number of located respondents	Weighted response rate	Average weight adjustment factor (WT14)
Total	50,764	82.7	1.19
Institutional sector			
Public less-than-2-year	850	83.8	1.19
Public 2-year	7,062	81.5	1.22
Public 4-year non-doctorate-granting	7,578	84.9	1.16
Public 4-year doctorate-granting	16,554	83.6	1.18
Private not-for-profit 2-year or less	1,120	77.6	1.29
Private not-for-profit 4-year, non-doctorate-granting	6,064	83.7	1.18
Private not-for-profit 4-year doctorate-granting	7,077	84.4	1.17
Private for-profit less-than-2-year	2,676	75.7	1.31
Private for-profit 2-year	882	77.9	1.28
Private for-profit 4-year	901	78.9	1.25
Region			
Southwest	5,348	79.2	1.24
AK, HI, PR	1,147	71.4	1.42
Other	44,269	83.4	1.18
Student type			
Confirmed baccalaureate	11,803	86.8	1.15
Other undergraduate	28,854	81.7	1.22
Graduate	9,075	86.1	1.16
First-professional	1,032	86.7	1.15
Age group			
Less than 30	36,430	81.3	1.21
30 or older	14,334	85.9	1.15
Sex			
Male	21,007	81.1	1.21
Female	29,757	83.9	1.18
Received institutional aid			
Yes	11,647	85.2	1.16
No	39,117	82.2	1.20
Pell Grant recipient			
Yes	10,780	80.6	1.23
No	39,984	83.2	1.18
Stafford Loan recipient			
Yes	17,940	83.5	1.18
No	32,824	82.3	1.20
Citizenship			
U.S. citizen or resident	48,892	83.1	1.19
Visa	1,872	70.6	1.38
Fall enrollment			
Not enrolled	8,253	80.7	1.23
Enrolled at NPSAS institution	41,380	83.1	1.19
Enrolled at other institution	1,131	87.0	1.14
Number of phone numbers			
0–4	49,863	82.8	1.19
5	666	77.1	1.28
More than 5	235	71.3	1.37

Table 6-7.—Average weight adjustment factors from logistic model used to adjust CATI weights for student location nonresponse —Continued

Logistic model predictor variables	Number of located respondents	Weighted response rate	Average weight adjustment factor (WT14)
Number of schools attended			
1	45,918	82.0	1.21
2	4,535	92.7	1.07
3 or 4	311	98.1	1.02
Date of birth preloaded in CATI			
Yes	46,963	82.4	1.20
No	3,801	86.8	1.15
Parent information preloaded in CATI			
Yes	46,865	82.6	1.19
No	3,899	84.3	1.18
CHAID segments			
1 = Non-Hispanic, no institutional aid, attended 2 schools	3,376	93.2	1.06
2 = Other	47,388	82.2	1.20

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The resulting weight adjustment factors are

- minimum: 1.00
- median: 1.18
- maximum: 1.84.

(14) Adjustment for CATI Refusals (WT15)

The second stage of student CATI nonresponse adjustment was an adjustment for refusal during CATI, given that the student was located. This additional type of nonresponse adjustment was made to further compensate for the potential CATI nonresponse bias. The same logistic regression procedure was used as in the adjustment for study nonresponse and not locating students (WT12 and WT14). Candidate predictor variables were the same as those used in the location nonresponse adjustment, with the addition of student marital status and dependency status (2 levels). These additional variables were missing for 5 percent or fewer of all located study respondents.

As in the other two nonresponse adjustments, a CHAID analysis was performed on the predictor variables to detect important interactions. The resulting segment interactions and all the main effect variables were then subjected to variable screening in the logistic procedure. Variables significant at the 15 percent significance level were retained, with the exception of institution type, student type, Pell Grant status, and Stafford Loan status, which were retained regardless of the significance level.

Table 6-8 presents the final predictor variables used in the logistic model to adjust the CATI weights and the average weight adjustment factor resulting from these variables. As in the previous nonresponse adjustments, the weighting adjustment factor for student *j* was the reciprocal of the predicted response probability, or

$$WT15 = 1/\hat{p}_{rj} .$$

The resulting weight adjustment factors are

- minimum: 1.00
- median: 1.08
- maximum: 1.37.

(16) Adjustment for Other CATI Nonresponse (WT16)

The third, and final, stage of adjustment for student CATI nonresponse was adjustment for a student not responding to CATI, given that the student was located and did not refuse. This additional type of CATI nonresponse adjustment was made to further compensate for the potential CATI nonresponse bias. The same logistic regression procedure was used as in the adjustment for study nonresponse, not locating students, and CATI refusals (WT12, WT14, and WT15). Candidate predictor variables were the same as those used in the CATI refusal nonresponse adjustment, using three-level dependency status rather than two-level dependency status. This new variable was missing for fewer than 5 percent of all located and nonrefusal study respondents.

As in the other three nonresponse adjustments, a CHAID analysis was performed on the predictor variables to detect important interactions. The resulting segment interactions and all the main effect variables were then subjected to variable screening in the logistic procedure. Variables significant at the 15 percent significance level were retained, with the exception of institution type, student type, Pell Grant status, and Stafford Loan status, which were retained regardless of the significance level.

Table 6-9 presents the final predictor variables used in the logistic model to adjust the CATI weights and the average weight adjustment factor resulting from these variables. As in the previous nonresponse adjustments, the weighting adjustment factor for student *j* was the reciprocal of the predicted response probability, or

$$WT16 = 1/\hat{p}_{rj} .$$

Table 6-8.—Average weight adjustment factors from logistic model used to adjust CATI weights for student refusal nonresponse

Logistic model predictor variables	Number of nonrefusal respondents	Weighted response rate	Average weight adjustment factor (WT15)
Total	46,340	89.6	1.10
Institutional sector			
Public less-than-2-year	780	89.7	1.11
Public 2-year	6,240	87.5	1.13
Public 4-year non-doctorate-granting	6,920	91.1	1.09
Public 4-year doctorate-granting	15,180	90.9	1.09
Private not-for-profit 2-year or less	1,040	92.0	1.08
Private not-for-profit 4-year, non-doctorate-granting	5,590	91.4	1.09
Private not-for-profit 4-year doctorate-granting	6,460	90.6	1.10
Private for-profit less-than-2-year	2,500	93.0	1.08
Private for-profit 2-year	800	91.8	1.09
Private for-profit 4-year	810	90.3	1.11
Region			
Southeast	10,320	91.6	1.08
Rocky Mountains	1,910	90.6	1.09
AK, HI, PR	1,120	96.9	1.03
Other	32,990	88.8	1.10
Student type			
Confirmed baccalaureate	10,830	92.3	1.08
Other undergraduate	26,230	89.1	1.10
Graduate	8,320	91.2	1.09
First-professional	950	91.4	1.09
Age group			
Less than 30	33,370	90.2	1.09
30 or older	12,960	88.3	1.11
Sex			
Male	19,090	89.0	1.10
Female	27,250	90.1	1.09
Federal aid recipient			
Yes	21,110	93.2	1.07
No	25,230	87.4	1.12
Pell Grant recipient			
Yes	10,170	94.5	1.05
No	36,170	88.4	1.11
Stafford Loan recipient			
Yes	16,710	92.9	1.07
No	29,630	88.4	1.11
Citizenship			
U.S. citizen	42,600	89.3	1.10
Resident	1,980	94.3	1.05
Visa	1,760	93.5	1.06
Hispanic			
Yes	4,840	92.5	1.06
No	41,490	89.3	1.10

Table 6-8.—Average weight adjustment factors from logistic model used to adjust CATI weights for student refusal nonresponse—Continued

Logistic model predictor variables	Number of nonrefusal respondents	Weighted response rate	Average weight adjustment factor (WT15)
Enrollment[1]			
Less than or equal to 3,267	11,140	92.3	1.08
Greater than 3,267	35,200	89.1	1.10
Number of schools attended			
1	41,600	89.2	1.10
2	4,430	97.0	1.03
3 or 4	310	100.0	1.00
CPS match			
Yes	24,370	92.7	1.07
No	21,970	87.0	1.12
Date of birth preloaded in CATI			
Yes	42,720	89.2	1.10
No	3,620	95.1	1.05
Marital status			
Single	33,940	89.5	1.10
Married	11,740	90.0	1.09
Separated	660	90.0	1.09
CHAID segments[2]			
1 = No aid, attended 1 school, attended full time in fall	7,230	88.7	1.12
2 = No aid, attended 1 school, attended half time in fall	2,970	86.8	1.14
3 = No aid, attended 1 school, attended less than half time or not at all in fall	6,940	83.2	1.19
4 = No aid, attended more than 1 school	1,950	100.0	1.00
5 = Received aid, New England, enrollment <=11,096	990	90.4	1.10
6 = Received aid, New England, 11,096 < enrollment < 24,120	280	87.4	1.14
7 = Received aid, Plains, Southeast, Southwest, Rocky Mountains, Far West, attended less than full time in fall	2,050	91.3	1.09
8 = Received aid, Plains, Southeast, Southwest, Rocky Mountains, Far West, did not attend in fall	1,970	92.6	1.07
9 = Received aid, AK, HI, PR, 15-23 years old	510	99.7	1.00
10 = Other	21,450	93.2	1.07

[1] Enrollment categories were defined by quartiles and then collapsed in the model.

[2] Enrollment categories were defined by quartiles and then collapsed in the Chi-squared automatic interaction detection (CHAID) analysis.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 6-9.—Average weight adjustment factors from logistic model used to adjust CATI weights for student other nonresponse

Logistic model predictor variables	Number of respondents	Weighted response rate	Average weight adjustment factor (WT16)
Total	44,490	95.5	1.04
Institutional sector			
Public less-than-2-year	740	93.4	1.06
Public 2-year	5,950	94.7	1.05
Public 4-year non-doctorate-granting	6,730	96.9	1.03
Public 4-year doctorate-granting	14,640	96.2	1.04
Private not-for-profit 2-year or less	980	94.2	1.06
Private not-for-profit 4-year, non-doctorate-granting	5,410	96.4	1.03
Private not-for-profit 4-year doctorate-granting	6,150	95.1	1.05
Private for-profit less-than-2-year	2,350	94.7	1.05
Private for-profit 2-year	780	97.9	1.02
Private for-profit 4-year	760	94.4	1.06
Region			
New England	2,540	95.2	1.05
Southwest	4,650	94.4	1.05
Other	37,310	95.7	1.04
Student type			
Confirmed baccalaureate	10,400	96.2	1.04
Other undergraduate	25,130	95.3	1.04
Graduate	8,040	96.6	1.03
First-professional	920	96.9	1.03
Gender			
Male	18,240	94.9	1.05
Female	26,250	96.1	1.04
Institutional aid recipient			
Yes	10,450	96.4	1.04
No	34,040	95.4	1.04
Pell Grant recipient			
Yes	9,730	95.8	1.04
No	34,760	95.5	1.04
Stafford Loan recipient			
Yes	16,180	97.0	1.03
No	28,310	95.0	1.05
Fall attendance			
Full time	27,730	96.4	1.03
Half time	5,710	95.5	1.04
Less than half time	4,040	94.0	1.05
None	7,020	94.2	1.05
Enrollment			
Less than or equal to 11,096	22,260	96.6	1.03
Between 11,096 and 24,120 (not inclusive)	11,060	95.0	1.04
Greater than or equal to 24,120	11,170	94.4	1.05
Number of schools attended			
1	39,790	95.3	1.04
2	4,390	99.2	1.01
3 or 4	310	100.0	1.00

Table 6-9.—Average weight adjustment factors from logistic model used to adjust CATI weights for student other nonresponse—Continued

Logistic model predictor variables	Number of respondents	Weighted response rate	Average weight adjustment factor (WT16)
Number of phone numbers			
0	150	71.4	1.39
1 or 2	34,890	95.8	1.04
3	6,700	95.1	1.04
4	2,010	95.3	1.04
5	560	94.5	1.05
More than 5	190	90.4	1.09
Marital status			
Single	32,460	95.3	1.04
Married or separated	12,030	96.3	1.03
Dependency			
Dependent	24,970	95.9	1.04
Independent	19,520	95.1	1.04
Date of birth preloaded in CATI			
Yes	40,990	95.4	1.04
No	3,500	97.6	1.02
Parent information preloaded in CATI			
Yes	3,440	96.9	1.03
No	41,060	95.5	1.04
CHAID segments			
1 = U.S. citizen, attended 1 school, Hispanic	3,500	93.1	1.07
2 = U.S. citizen, attended more than 1 school, no federal aid	2,240	100.0	1.00
3 = Resident or visa, public 2-year or less, attended 1 school	380	84.0	1.19
4 = Resident or visa, public 4-year attended 1 school	1,450	92.1	1.08
5 = Resident or visa, Private not-for-profit 2-year or less, full-time in fall	50	71.0	1.38
6 = Resident or visa, Private not-for-profit 4-year, single	550	85.6	1.16
7 = Resident or visa, Private not-for-profit 4-year, married or separated	260	92.1	1.08
8 = Resident or visa, Private for-profit less-than-2-year, enrolled at NPSAS institution or not at all in fall	110	89.7	1.11
9 = Private for-profit 2-year or more, resident	80	94.8	1.05
10 = Private for-profit 2-year or more, visa	60	82.4	1.22
11 = Other	35,810	96.4	1.03

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The resulting weight adjustment factors are

- minimum: 1.00
- median: 1.03
- maximum: 1.49.

(17) Poststratification Adjustment for CATI Respondents (WT17)

To ensure population coverage, the CATI weights were adjusted to control totals with the same generalized raking procedure used to adjust the study weights. The control totals established for the study weights also were used for the CATI weights. To help reduce nonresponse bias further, we additionally formed control totals for annual enrollment by student type as well as control totals by

- sex,
- age group (<24, 24–29, and 30+),
- federal aid applicant,
- federal aid receipt,
- state aid receipt,
- institution aid receipt, and
- fall attendance status.

The annual enrollment control totals by student type were formed using the study weights so that estimates of the annual enrollment using the study or CATI weights would be the same. The other (new) control totals were also computed using the study weights because these variables were known for most CATI respondents and nonrespondents. As in the previous poststratification adjustment (WT13).

The exponential adjustment satisfies the following constraints:

$$\sum_j W_j \lambda_j x_j^T = \eta_O^T \ ,$$

where

W_j = the cumulative weight (WT1•WT2•....•WT12),

λ_j = $\exp(\alpha + \mathbf{x}_j B)$,

α = model intercept

β = vector of parameters that specify the nature of the relationship between λ_j and $\mathbf{x}_j$

$\mathbf{x}_j$ = the vector of regressors associated with the domains to be controlled, and

η_o = the set of control totals.

WT17 = λ_j .

Table 6-5 presented the student enrollment control totals by student type and institution type and the average weight adjustment factors by these variables. Similarly, Table 6-6 presented the variables associated with the Pell Grant and Stafford Loan control totals and the average weight adjustment factors. Table 6-10 displays seven variables by institution type associated with the student enrollment control totals and the average weight adjustment factors for these variables. The weight adjustment factors from the exponential adjustment are summarized below, and met the constraints

- minimum: 0.55
- median: 0.99
- maximum: 1.36.

After this last weight adjustment was performed, the final CATI weights (CATIWT) were computed as the product of the unrounded study weights and the remaining four weight components and then rounded to the nearest integer.

The two statistical analysis weights on the analysis files are the study weight (STUDYWT) and the CATI weight (CATIWT). The study weight is the product of weight components WT1-WT13 and should be used when no data items in the analysis are based entirely on CATI data or require CATI data to be reliable. The CATI weight is the product of all weight components (WT1-WT17) and should be used when at least one data item in the analysis is based entirely on CATI data or requires CATI data to be reliable.

The distributions of the study weights and the CATI weights are summarized in Tables 6-11 and 6-12, respectively. These tables also summarize the variance inflation due to unequal weighting, i.e., the unequal weighting effect. It can be seen that the unequal weighting effects are slightly higher for the CATI weights than for the study weights (2.00 versus 1.83). The lowest design effects are for students from public 2-year institutions, and the highest design effects are for students from private for-profit less-than-2-year institutions.

Table 6-10.—Average weight adjustment factors from exponential model for poststratifying to study weight control totals

Exponential model variables	Control total	Average weight adjustment factor (WT17)
Fall attendance by institutional sector		
Full-time		
Public less-than-2-year	50,618	0.96
Public 2-year	2,376,264	0.95
Public 4-year non-doctorate-granting	1,345,611	0.98
Public 4-year doctorate-granting	3,069,092	0.98
Private not-for-profit 2-year or less	87,384	1.00
Private not-for-profit 4-year, non-doctorate-granting	1,110,598	0.98
Private not-for-profit 4-year doctorate-granting	1,162,583	0.98
Private for-profit less-than-2-year	143,473	1.02
Private for-profit 2-year	191,160	1.03
Private for-profit 4-year	146,104	1.08
Half-time		
Public less-than-2-year	17,738	1.09
Public 2-year	1,648,417	1.03
Public 4-year non-doctorate-granting	370,970	1.05
Public 4-year doctorate-granting	585,981	1.13
Private not-for-profit 2-year or less	13,695	0.97
Private not-for-profit 4-year, non-doctorate-granting	230,795	1.04
Private not-for-profit 4-year doctorate-granting	232,861	1.09
Private for-profit less-than-2-year	22,251	1.04
Private for-profit 2-year	33,212	1.00
Private for-profit 4-year	36,175	1.06
Less than half time		
Public less-than-2-year	16,182	0.98
Public 2-year	1,540,201	1.06
Public 4-year non-doctorate-granting	242,822	1.03
Public 4-year doctorate-granting	402,605	1.00
Private not-for-profit 2-year or less or 4-year, non-doctorate-granting	155,002	1.05
Private not-for-profit 4-year doctorate-granting	165,969	1.05
Private for-profit less-than-2-year	5,251	0.76
Private for-profit 2-year and 4-year	21,883	0.98
None		
Public less-than-2-year	27,992	1.02
Public 2-year	2,003,574	1.01
Public 4-year non-doctorate-granting	348,018	1.03
Public 4-year doctorate-granting	599,767	1.00
Private not-for-profit 2-year or less	29,965	1.02
Private not-for-profit 4-year, non-doctorate-granting	246,762	1.03
Private not-for-profit 4-year doctorate-granting	219,251	0.98
Private for-profit less-than-2-year	158,775	1.01
Private for-profit 2-year	86,992	0.98
Private for-profit 4-year	50,002	0.87

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 6-10.—Average weight adjustment factors from exponential model for poststratifying to study weight control totals —Continued

Exponential model variables	Control total	Average weight adjustment factor (WT17)
Age group by institutional sector		
Less than 24 years old		
Public less-than-2-year	35,286	1.01
Public 2-year	3,481,994	0.98
Public 4-year non-doctorate-granting	1,284,235	1.00
Public 4-year doctorate-granting	2,688,476	0.99
Private not-for-profit 2-year or less	90,507	1.00
Private not-for-profit 4-year, non-doctorate-granting	941,304	0.98
Private not-for-profit 4-year doctorate-granting	848,262	1.01
Private for-profit less-than-2-year	140,826	0.99
Private for-profit 2-year	153,360	0.98
Private for-profit 4-year	76,616	1.11
24-29 years old		
Public less-than-2-year	22,563	1.01
Public 2-year	1,391,321	1.03
Public 4-year non-doctorate-granting	446,216	1.01
Public 4-year doctorate-granting	1,007,081	1.03
Private not-for-profit 2-year or less	19,311	0.90
Private not-for-profit 4-year, non-doctorate-granting	272,413	1.04
Private not-for-profit 4-year doctorate-granting	441,175	1.00
Private for-profit less-than-2-year	91,421	1.02
Private for-profit 2-year	91,794	1.11
Private for-profit 4-year	68,627	1.03
30 years old or older		
Public less-than-2-year	54,683	0.97
Public 2-year	2,695,140	1.00
Public 4-year non-doctorate-granting	576,970	0.98
Public 4-year doctorate-granting	961,888	0.99
Private not-for-profit 2-year or less	25,922	1.11
Private not-for-profit 4-year, non-doctorate-granting	524,744	1.00
Private not-for-profit 4-year doctorate-granting	491,226	0.99
Private for-profit less-than-2-year	97,502	1.03
Private for-profit 2-year	73,333	0.97
Private for-profit 4-year	101,798	0.97

Table 6-10.—Average weight adjustment factors from exponential model for poststratifying to study weight control totals —Continued

Exponential model variables	Control total	Average weight adjustment factor (WT17)
Gender by institutional sector		
Males		
Public less-than-2-year	55,370	1.01
Public 2-year	3,274,820	1.01
Public 4-year non-doctorate-granting	942,920	0.98
Public 4-year doctorate-granting	2,140,714	1.00
Private not-for-profit 2-year or less	58,247	1.00
Private not-for-profit 4-year, non-doctorate-granting	708,495	0.99
Private not-for-profit 4-year doctorate-granting	821,063	0.98
Private for-profit less-than-2-year	121,612	0.98
Private for-profit 2-year	112,219	1.00
Private for-profit 4-year	127,325	1.00
Females		
Public less-than-2-year	57,162	0.98
Public 2-year	4,293,635	0.99
Public 4-year non-doctorate-granting	1,364,501	1.01
Public 4-year doctorate-granting	2,516,732	1.00
Private not-for-profit 2-year or less	77,494	1.01
Private not-for-profit 4-year, non-doctorate-granting	1,029,968	1.00
Private not-for-profit 4-year doctorate-granting	959,600	1.01
Private for-profit less-than-2-year	208,138	1.02
Private for-profit 2-year	206,268	1.01
Private for-profit 4-year	119,717	1.04
CPS match by institutional sector		
Matched CPS		
Public less-than-2-year	41,733	0.95
Public 2-year	2,537,146	1.00
Public 4-year non-doctorate-granting	1,220,921	0.99
Public 4-year doctorate-granting	2,252,757	0.99
Private not-for-profit 2-year or less	93,083	1.00
Private not-for-profit 4-year, non-doctorate-granting	1,042,320	0.99
Private not-for-profit 4-year doctorate-granting	938,019	1.01
Private for-profit less-than-2-year	276,380	1.01
Private for-profit 2-year	283,412	1.01
Private for-profit 4-year	163,223	0.98
Did not match CPS		
Public less-than-2-year	70,800	1.03
Public 2-year	5,031,309	1.00
Public 4-year non-doctorate-granting	1,086,501	1.01
Public 4-year doctorate-granting	2,404,689	1.01
Private not-for-profit 2-year or less	42,659	1.01
Private not-for-profit 4-year, non-doctorate-granting	696,143	1.01
Private not-for-profit 4-year doctorate-granting	842,645	0.98
Private for-profit less-than-2-year	53,371	0.98
Private for-profit 2-year	35,076	1.01
Private for-profit 4-year	83,820	1.08

Table 6-10.—Average weight adjustment factors from exponential model for poststratifying to study weight control totals —Continued

Exponential model variables	Control total	Average weight adjustment factor (WT17)
Federal aid recipient by institutional sector		
Received federal financial aid		
Public less-than-2-year	29,806	0.95
Public 2-year	1,725,729	0.99
Public 4-year non-doctorate-granting	1,013,460	1.00
Public 4-year doctorate-granting	1,926,288	1.00
Private not-for-profit 2-year or less	78,783	0.99
Private not-for-profit 4-year, non-doctorate-granting	928,595	0.99
Private not-for-profit 4-year doctorate-granting	843,977	1.02
Private for-profit less-than-2-year	265,349	1.03
Private for-profit 2-year	276,166	1.00
Private for-profit 4-year	162,384	0.98
Did not receive federal financial aid		
Public less-than-2-year	82,727	1.01
Public 2-year	5,842,726	1.00
Public 4-year non-doctorate-granting	1,293,962	1.00
Public 4-year doctorate-granting	2,731,158	1.00
Private not-for-profit 2-year or less	56,959	1.03
Private not-for-profit 4-year, non-doctorate-granting	809,868	1.00
Private not-for-profit 4-year doctorate-granting	936,687	0.98
Private for-profit less-than-2-year	64,402	0.95
Private for-profit 2-year	42,322	1.04
Private for-profit 4-year	84,659	1.08
State aid recipient by institutional sector		
Received state financial aid		
Public less-than-2-year	7,222	0.97
Public 2-year	993,524	0.98
Public 4-year non-doctorate-granting	410,207	0.99
Public 4-year doctorate-granting	626,012	1.02
Private not-for-profit 2-year or less	27,114	0.95
Private not-for-profit 4-year, non-doctorate-granting	363,646	0.96
Private not-for-profit 4-year doctorate-granting	199,701	0.98
Private for-profit less-than-2-year	12,942	0.98
Private for-profit 2-year	53,653	0.91
Private for-profit 4-year	11,875	0.76
Did not receive state financial aid		
Public less-than-2-year	105,311	0.99
Public 2-year	6,574,931	1.00
Public 4-year non-doctorate-granting	1,897,215	1.00
Public 4-year doctorate-granting	4,031,434	1.00
Private not-for-profit 2-year or less	108,628	1.02
Private not-for-profit 4-year, non-doctorate-granting	1,374,817	1.01
Private not-for-profit 4-year doctorate-granting	1,580,963	1.00
Private for-profit less-than-2-year	316,809	1.01
Private for-profit 2-year	264,835	1.03
Private for-profit 4-year	235,168	1.04

Table 6-10.—Average weight adjustment factors from exponential model for poststratifying to study weight control totals —Continued

Exponential model variables	Control total	Average weight adjustment factor (WT17)
Institutional aid recipient by institutional sector		
Received institutional financial aid		
Public 2-year-or-less	306,645	1.01
Public 4-year non-doctorate-granting	283,801	1.03
Public 4-year doctorate-granting	983,407	1.00
Private not-for-profit 2-year or less	44,809	1.01
Private not-for-profit 4-year, non-doctorate-granting	678,407	0.97
Private not-for-profit 4-year doctorate-granting	715,038	1.01
Private for-profit less-than-2-year	19,664	0.98
Private for-profit 2-year	19,846	1.07
Private for-profit 4-year	23,903	1.10
Did not receive institutional financial aid		
Public 2-year-or-less	9,290,254	1.00
Public 4-year non-doctorate-granting	2,023,621	0.99
Public 4-year doctorate-granting	3,674,039	1.00
Private not-for-profit 2-year or less	90,933	1.00
Private not-for-profit 4-year, non-doctorate-granting	1,060,056	1.02
Private not-for-profit 4-year doctorate-granting	1,065,626	0.99
Private for-profit less-than-2-year	310,087	1.01
Private for-profit 2-year	298,642	1.00
Private for-profit 4-year	223,140	1.01

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 6-11.—Study weight distribution and unequal weighting effects for study respondents

Analysis Domain	Minimum	First Quartile	Median	Third Quartile	Maximum	Mean	Unequal weighting effect[1]
Total	2.53	93.18	255.23	395.83	2862.53	310.78	1.83
Student type							
Undergraduate	2.53	89.49	292.41	413.49	2862.53	331.21	1.83
Graduate	10.34	97.67	225.94	289.92	2592.78	219.30	1.54
First-professional	25.91	204.17	278.96	339.23	1071.49	271.54	1.18
Institutional sector							
Public less-than-2-year	2.53	24.92	91.80	181.87	260.08	105.86	1.59
Public 2-year	50.39	754.92	884.41	998.65	2100.35	847.34	1.07
Public 4-year non-doctorate-granting	10.34	87.45	268.19	366.98	2862.53	257.81	1.58
Public 4-year doctorate-granting	10.22	100.11	213.72	379.26	1829.84	236.06	1.50
Private not-for-profit 2-year or less	6.29	57.31	86.03	127.03	170.17	89.84	1.24
Private not-for-profit 4-year, non-doctorate-granting	6.51	96.59	255.36	371.57	988.83	241.79	1.39
Private not-for-profit 4-year doctorate-granting	13.89	71.69	213.49	315.56	1549.54	211.68	1.53
Private for-profit less-than-2-year	3.27	53.35	67.05	96.30	876.59	90.79	2.26
Private for-profit 2-year	34.60	205.64	254.12	325.31	815.41	271.28	1.19
Private for-profit 4-year	13.87	118.03	195.84	265.25	1520.44	210.61	1.54

[1] Unequal weighting effect calculated as $n\,\Sigma(Wt)^2 / (\Sigma\,Wt)^2$.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table 6-12.—CATI weight distribution and unequal weighting effects for CATI respondents

Analysis Domain	Minimum	First Quartile	Median	Third Quartile	Maximum	Mean	Unequal weighting effect[1]
Total	2.53	93.18	255.23	395.83	2862.53	310.78	2.00
Student type							
Undergraduate	2.95	116.99	378.39	579.72	3696.58	465.41	2.00
Graduate	10.23	123.61	285.08	389.45	2908.80	290.19	1.60
First-professional	25.99	248.99	356.54	440.64	1754.40	353.96	1.22
Institutional sector							
Public less-than-2-year	2.95	31.30	106.35	265.10	615.24	151.66	1.71
Public 2-year	52.92	1012.93	1358.66	1578.59	3387.62	1271.15	1.13
Public 4-year non-doctorate-granting	10.23	112.61	338.65	504.48	3696.58	343.11	1.65
Public 4-year doctorate-granting	9.25	125.97	225.24	527.66	2173.21	318.07	1.58
Private not-for-profit 2-year or less	9.70	80.91	137.01	192.45	393.98	138.65	1.29
Private not-for-profit 4-year, non-doctorate-granting	8.07	119.87	317.84	501.01	1620.23	321.52	1.49
Private not-for-profit 4-year doctorate-granting	13.21	94.20	265.57	440.63	2740.76	289.59	1.58
Private for-profit less-than-2-year	3.18	77.60	106.61	146.08	1618.00	140.62	2.38
Private for-profit 2-year	81.55	307.69	386.56	482.34	1166.44	406.75	1.15
Private for-profit 4-year	12.26	176.68	262.79	431.88	2229.27	323.35	1.55

[1] Unequal weighting effect calculated as $n\,\Sigma(Wt)^2 / (\Sigma\,Wt)^2$.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

6.2 Baccalaureate (B&B) Weights

Because baccalaureate status was known only for CATI respondents, the CATI weights (WT17) are the appropriate analysis weights for students known to be baccalaureate recipients.

In addition, base weights were needed for all students who belonged to the base-year cohort of the Baccalaureate and Beyond (B&B)-longitudinal follow-up study. The sampling frame for the B&B follow-up included all NPSAS CATI respondents confirmed to be baccalaureate recipients, as well as all study respondents who were sampled as potential baccalaureate recipients but who were CATI nonrespondents. Hence, the NPSAS study weight should be used as the base weight to develop statistical analysis weights for the Baccalaureate and Beyond Longitudinal Study.

6.3 Variance Estimation

For probability-based sample surveys, most estimates are nonlinear statistics. For example, a mean or proportion, which is expressed as $\Sigma wy/\Sigma w$, is nonlinear because the denominator is a survey estimate of the (unknown) population total. In this situation, the variances of the estimates cannot be expressed in closed form. Two common procedures for estimating variances of survey statistics are the Taylor series linearization procedure and the balanced repeated replication (BRR) procedure, which are both available on the NPSAS data files. Section 6.3.1 discusses the analysis strata and replicates created for the Taylor series procedure, and Section 6.3.2 discusses the replicate weights created for the BRR procedure.

Also, to measure the effects that complex sample design features had on the variances of survey estimates, Section 6.3.3 presents design effect estimates for several key statistics within each of several analysis domains.

6.3.1 Taylor Series

The Taylor series variance estimation procedure is a well-known technique to estimate the variances of nonlinear statistics. The procedure takes the first-order Taylor series approximation of the nonlinear statistic and then substitutes the linear representation into the appropriate variance formula based on the sample design. Woodruff[6] presented the mathematical formulation of this procedure.

For stratified multistage surveys, the Taylor series procedure requires analysis strata and analysis primary sampling units (PSUs) defined from the sampling strata and PSUs used in the first stage of sampling. For NPSAS:2000, analysis strata and analysis PSUs were defined separately for each domain for which separate analyses were anticipated: all students combined, all undergraduate students, all graduate/first-professional students, and all baccalaureate students.

The first step was to identify the PSUs used at the first stage of sample selection. As discussed in chapter 2, the PSUs included the 796 noncertainty institutions. For the 287 certainty institutions, however, the students represent the first stage of sampling. In order to obtain appropriate degrees of freedom for variance estimation, the students selected from each certainty institution were partitioned into two, three, or four pseudo-PSUs by random assignment of sample students into approximately equal-sized groups. The number of pseudo-PSUs formed was based on the institution's measure of size for first-stage sampling.

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[6] Woodruff, R.S. (1971). "A Simple Method for Approximating the Variance of a Complicated Estimate." *Journal of the American Statistical Association*, Vol. 66, pp. 411–414.

The next step was to sort the PSUs and pseudo-PSUs by the 22 institution strata, then by certainty versus noncertainty, and then by the selection order for the noncertainty institutions and by IPEDS ID for the certainty institutions. From this sorted list, the analysis PSUs were then defined by collapsing the PSUs and pseudo-PSUs as required so each analysis PSU contained at least four CATI respondents. This sample size requirement satisfied the requirements of the NCES DAS and ensured stable variance estimates. Analysis PSUs were then paired to form analysis strata. Certainty institutions that included three or four pseudo-PSUs were made a single analysis stratum. This process resulted in 624 analysis strata for all students, 623 analysis strata for undergraduate students, 361 analysis strata for graduate/first-professional students, and 396 analysis strata for baccalaureates.

The names of the analysis strata and analysis PSU variables are:

• **ANALSTR, ANALPSU:**	Analysis strata and analysis PSUs for all students
• **UANALSTR, UANALPSU:**	Analysis strata and analysis PSUs for undergraduate students
• **GANALSTR, GANALPSU:**	Analysis strata and analysis PSUs for graduate/first-professional students
• **BANALSTR, BANALPSU:**	Analysis strata and analysis PSUs for baccalaureate recipients.

6.3.2 Balanced Repeated Replication

The BRR procedure is an alternative variance estimation procedure that computes the variance based on a balanced set of pseudo-replicates. BRR weights were computed because of concern that the variances for medians and other quantiles might not be appropriate when computed using Taylor series or other methods such as the Jackknife procedure. The BRR variance estimation process involved modeling the design as if it were a two-PSU-per-stratum design. Variances were then calculated using a random group type of variance estimation procedure, with a balanced set of replicates as the groups. Balancing was done by creating replicates using an orthogonal matrix and allowed the use of less than the full set of 2^L possible replicates, where L is the number of analysis strata.

To form pseudo replicates for BRR variance estimation, the Taylor Series analysis strata were collapsed. The number of Taylor Series analysis strata.and PSUs were different for all students combined, graduates/first-professionals, and baccalaureate recipients, so the collapsing was done independently and, hence, with different results. The goal of the collapsing was to get

50 to 120 replicates and not necessarily the same number of replicates for each domain. A common rule is to have at least 50 replicates; the gain in efficiency with more than 120 replicates does not justify the extra effort.[7] The analysis strata defined for the Taylor series were collapsed to form the BRR analysis strata, which included

- 52 BRR strata for all students combined,
- 60 BRR strata for graduate/first-professional students, and
- 64 BRR strata for baccalaureate students.

Then, two BRR pseudo-PSUs were created within each stratum by collapsing the Taylor series analysis PSUs.

Based on the BRR strata and PSU definitions, we created replicate weights associated with the two analysis weights: study weights and CATI weights. For the study weights, this included separate replicate weights for all students and for graduate/first-professional students only; for the CATI weights, this included separate replicate weights for all students, graduate/first-professional students only, and baccalaureates only. Thus, a total of five replicate weight sets were created:

- **BRSWT01–BRSWT52:** Study BRR weights for all students
- **BRSGWT01–BRSGWT60:** Study BRR weights for graduate/first-professional students
- **BRCWT01–BRCWT52:** CATI BRR weights for all students
- **BRCGWT01–BRCGWT60:** CATI BRR weights for graduate/first-professional students
- **BRCBWT01–BRCBWT64:** CATI BRR weights for baccalaureate students.

To create the replicate weights, student-level replicate weights were defined. For each replicate set, student weights of one PSU within each analysis stratum were set to zero and the student weights of the other PSUs were doubled to approximately preserve the population weight total. The number of replicates was set equal to the number of analysis strata to achieve the correct degrees of freedom for variance estimation. Then each set of replicate weights was poststratified to the control totals, similar to the description in Section 6.1, with a couple of exceptions to allow the models to converge. First, there were model convergence problems for some replicates when we attempted to control to total Pell grant recipients and also to Pell grant amounts. Therefore, we could not control the mean value and could only control to Pell amounts. Second, for several of the replicates, we had to collapse some control totals, such as enrollment by sector, for two sectors because some replicates had small sample sizes for certain poststratification groups.

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[7] Babu V. Shah. Personal correspondence, 2001

6.3.3 Design Effects

The survey design effect for a statistic is defined as the ratio of the design-based variance estimate over the variance estimate that would have been obtained from a simple random sample of the same size (if that were practical). It is often used to measure the effects that sample design features have on the precision of survey estimates. For example, stratification tends to decrease the variance, but multistage sampling and unequal sampling rates usually increase the variance. Also, weight adjustments for nonresponse, which are performed to reduce nonresponse bias, increase the variance by increasing the weight variation. Because of these effects, most complex multistage sampling designs, like NPSAS:2000, result in design effects greater than one. That is, the design-based variance is larger than the simple random sample variance.

Specifically, the survey design effect for a given estimate, $\hat{\theta}$, is defined as

$$Deff(\hat{\theta}) = \frac{Var_{design}(\hat{\theta})}{Var_{srs}(\hat{\theta})}.$$

Also, the square root of the design effect is another useful measure, which can also be expressed as the ratio of the standard errors, or

$$Deft(\hat{\theta}) = \frac{SE_{design}(\hat{\theta})}{SE_{srs}(\hat{\theta})}.$$

In Appendix I, design effect estimates are presented to summarize the effects of stratification, multistage sampling, unequal probabilities of selection, and the nonresponse weight adjustments. These design effects were estimated using SUDAAN, which uses the Taylor series variance estimation procedure.[8] If one must perform a quick analysis of NPSAS:2000 data without using one of the software packages for analysis of complex survey data, the design effect tables in this appendix can be used to make approximate adjustments to the standard errors of survey statistics computed using the standard software packages that assume simple random sampling designs. However, one cannot be confident regarding the actual design-based standard errors without performing the analysis using one of the software packages specifically designed for analysis of data from complex sample surveys.

Large design effects imply large standard errors and relatively poor precision. Small design effects imply small standard errors and good precision. In general terms, a design effect under 2.0 is low, 2.0 to 3.0 is moderate, and above 3.0 is high. Moderate and high design effects often occur in complex surveys such as NPSAS, and the design effects in appendix I are consistent with those in past NPSAS studies. Unequal weighting causes large design effects and is often due to nonresponse adjustments. However, in NPSAS, the unequal weighting is due to the sample design and different sampling rates between institution strata and also different sampling rates between student strata. The median design effects in appendix I are generally lower when based on CATI weights rather than study weights. However, estimates based on CATI weights have smaller sample sizes, so the precision is not necessarily better than for estimates based on study weights with larger sample sizes.

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[8] B.V Shah, B.G Barnwell, and G.S Bieler. *SUDAAN User's Manual*. Research Triangle Park, NC: Research Triangle Institute, 1995.

Appendix I presents tables of design effect estimates for important survey estimates among undergraduate students, graduate students, and first-professional students, along with a discussion of statistical analysis considerations and specifications for the generic program code. The tables include design effects based on the study weights and on the CATI weights. Specifically, these tables are:

- Tables I.1–I.19: Design effects for undergraduates based on study weights
- Tables I.20–I.38: Design effects for undergraduates based on CATI weights
- Tables I.39–I.41: Design effects for graduates (excluding first-professionals) based on study weights
- Tables I.42–I.44: Design effects for graduates (excluding first-professionals) based on CATI weights
- Tables I.45–I.47: Design effects for first-professionals based on study weights
- Tables I.48–I.50: Design effects for first-professionals based on CATI weights.

Appendix A
NPSAS:2000 Technical Review Panel

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NPSAS:2000 Technical Review Panel
(as of May 2001)

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Appendix B
Data Collection Notification Materials

[ON U.S. DEPARTMENT OF EDUCATION LETTERHEAD]

(LETTER TO PREVIOUS NPSAS PARTICIPANTS)

Dear <<NAME OF CHIEF ADMINISTRATOR>>:

Thank you for your past participation in the National Postsecondary Student Aid Study!

<<INSTITUTION NAME>> has been selected to participate in the 2000 National Postsecondary Student Aid Study (NPSAS:2000), conducted for the U.S. Department of Education by our contractor, Research Triangle Institute (RTI). NPSAS is a major nationwide study of how students and their families finance education after high school. Please appoint a NPSAS coordinator for your institution to help provide information for the approximately <<NUMBER>> students we expect to sample from your institution.

During the past year, the National Center for Education Statistics (NCES) tested procedures for the full-scale study, which will include a sample of approximately 1,000 institutions and 65,000 students. The person you appoint as NPSAS coordinator will be asked to send a data file including all enrolled students and to orchestrate the information gathering between various staff and, possibly, departments within your school. This person will also identify and organize information on the enrollment status, any financial assistance, and demographic characteristics for each student that is sampled. Further details on the data collection procedures, our assurance of confidentiality, a listing of national organizations that have endorsed the study, and estimates of time commitments for your institution are enclosed. Also, NPSAS reports are available on the NCES website: http://nces.ed.gov/npsas.

An RTI representative will call your coordinator to answer any questions and to discuss the best method of data collection for your institution. If you have any questions about the study or procedures involved, please call Education Analyst, Sarah Oyer (1-800-806-1908) at RTI, or the NCES Project Officer, Andrew Malizio (202-219-1448; email address: amalizio@inet.ed.gov).

As a NPSAS:2000 participant, we will send you and your NPSAS institution coordinator a special summary report similar to the enclosed sample report. These special reports will not be published by NCES and are sent only to participating institutions.

We look forward to <<INSTITUTION NAME>>'s participation in the study. Thank you for your continued cooperation and prompt return of the enclosed NPSAS Coordinator Response Sheet.

Sincerely,

Gary W. Phillips
Acting Commissioner

[ON U.S. DEPARTMENT OF EDUCATION LETTERHEAD]

(LETTER TO "NEW" PARTICIPANTS)

Dear <<NAME OF CHIEF ADMINISTRATOR>>:

<<INSTITUTION NAME>> has been selected to participate in the 2000 National Postsecondary Student Aid Study (NPSAS:2000), conducted for the U.S. Department of Education by our contractor, Research Triangle Institute (RTI). NPSAS is a major nationwide study of how students and their families finance education after high school. Please appoint a NPSAS coordinator for your institution to help provide information for the approximately <<NUMBER>> students we expect to sample from your institution.

In response to the continuing need for the data provided by NPSAS, the National Education Statistics Act of 1994 authorizes the National Center for Education Statistics (NCES) to conduct this study periodically; prior NPSAS studies were conducted in 1987, 1990, 1993 and 1996.

During the past year, NCES tested procedures for the full-scale study which will include a sample of approximately 1,000 institutions and 65,000 students. The person you appoint as NPSAS coordinator will be asked to send a data file including all enrolled students and to orchestrate the information gathering between various staff and, possibly, departments within your school. This person will also identify and organize information on the enrollment status, any financial assistance, and demographic characteristics for each student that is sampled. Further details on the data collection procedures, our assurance of confidentiality, a listing of national organizations that have endorsed the study, and estimates of time commitments for your institution are enclosed. Also, NPSAS reports are available on the NCES website: http://nces.ed.gov/npsas.

An RTI representative will call your coordinator to answer any questions and to discuss the best method of data collection for your institution. If you have any questions about the study or procedures involved, please call Education Analyst, Sarah Oyer (1-800-806-1908) at RTI or the NCES Project Officer, Andrew Malizio (202-219-1448; email address: amalizio@inet.ed.gov).

As a NPSAS:2000 participant, we will send you and your NPSAS institution coordinator a special summary report similar to the enclosed sample report. These special reports will not be published by NCES and are sent only to participating institutions.

We look forward to <<INSTITUTION NAME>>'s participation in the NPSAS study. Thank you for your continued cooperation and prompt return of the enclosed NPSAS Coordinator Response Sheet.

Sincerely,

Gary W. Phillips
Acting Commissioner

[RTI LETTHEREAD]

December 9, 1999

Dear NPSAS Coordinator:

The Chief Administrator of your institution has appointed you as Coordinator for the 2000 National Postsecondary Student Aid Study (NPSAS:2000) 1999-2000.

NPSAS is being conducted by Research Triangle Institute (RTI) for the National Center for Education Statistics (NCES) of the U.S. Department of Education. During 1999-2000, NCES will conduct the fifth cycle of NPSAS, a major study on how students and their families finance postsecondary education. In response to the continuing need for the data provided by NPSAS, Congress has authorized that NCES conduct this study periodically; prior NPSAS studies were conducted in 1987, 1990, 1993, and 1996.

The Chief Administrator of your institution was sent a packet of information describing the study background, purposes, and processes. In this NPSAS binder, we have provided copies of all information sent to the Chief Administrator as well as more detailed information about the specific processes of the study and your essential role as the NPSAS Coordinator. .

Information from institutions will be gathered in two stages. The first stage involves obtaining from your institution an enrollment file from which RTI will select a sample of students. After RTI has determined the sample of students from your institution, the process of abstracting data from student records will begin. Abstracting student data involves entering locating, demographic, and financial aid information from the sampled students' records using a Computer Assisted Data Entry (CADE) software application running on the World Wide Web. Most NPSAS Coordinators will prefer to delegate these tasks to an appropriate institution staff member or to allow an RTI field staff member to perform this work.

To assist you in your role as NPSAS Coordinator the following items are also included with this binder:

- General information that describes the institutional component of the study;
- A Coordinator Response Sheet to be completed and returned to RTI (envelope provided);
- Copies of the Affidavit and Confidentiality Agreement all RTI staff who work on this project sign;
  - Specifications for preparing enrollment files;
  - Administrative aids, including:
- A Transmittal Sheet for returning the enrollment files;
- A prepaid Federal Express label for returning the enrollment files; and
- Labels to be attached to enrollment files for identification purposes.

Please return the completed Coordinator Response Sheet (fifth tab in this notebook) to us at your earliest convenience. You may either FAX it to us at 1-800-875-2050 or return it to us by mail in the enclosed postage paid envelope.

A member of our staff will be contacting you shortly to verify that you have received this package, to discuss options for providing the enrollment files and participating in the record abstraction process (CADE), and to answer any questions that you may have about the enclosed materials. All of the information in this binder can be found on our website: http://npsas.rti.org.

If you have any questions prior to our conversation, please do not hesitate to call Sarah Oyer (email address: oyer@rti.org) at 1-800-806-1908. You can also contact the NCES Project Officer, Drew Malizio, at 202-219-1448, or email him at: amalizio@inet.ed.gov. Thank you again for your cooperation.

Sincerely,

John A Riccobono

John A. Riccobono, Ph.D.
Project Director
Research Triangle Institute

[NCES Letterhead]

Date

NPSAS FS5/«Addr_ID»

«fname» «mname» «lname» «suffix»
«addr1»
«addr2»
«city», «state» «zip»«zip4»

Dear «sPretty_name»:

You've been selected to participate in an important study of students who continued their education beyond high school. RTI (Research Triangle Institute) of North Carolina is conducting the National Postsecondary Student Aid Study (NPSAS) for the U.S. Department of Education's National Center for Education Statistics. The purpose of the study is to determine how students and families meet the cost of education beyond high school. The study includes students from all types of postsecondary schools—less-than-2-year institutions, community colleges, 4-year colleges, and major universities. NPSAS collects information on student demographics, employment and family income, education and living expenses, financial aid, and community service activities.

An interviewer from RTI will phone you soon to conduct the 20-25 minute interview depending on your responses. We are especially interested in how you paid your school expenses if you did not receive financial aid and whether you received enough financial aid to meet your education expenses. Policymakers will use the data to decide the amount and the types of federal student aid available in the future.

Participation in NPSAS is voluntary. Your responses, however, are important to make the results of this study accurate and timely. NCES and its contractors adhere to the highest standards in protecting your privacy. A limited number of researchers are authorized by NCES to access information that may identify individuals. They can use the data only for statistical purposes and are subject to fines and imprisonment for misuse. No individual data that links your identity with your responses will be reported.

If you have comments about the accuracy of the time estimates or suggestions for improving the collection of information, write directly to: U.S. Department of Education, National Center for Education Statistics, NPSAS Project Officer #1850-0666, 1990 K St. NW, Washington, DC 20208. More information about the study is enclosed. If you would like to set up an appointment for a telephone interview, please call Marty Nash at RTI [toll-free] 1-800-472-6094. Persons with hearing or speech impairments may call [toll free] 877-212-7230 (TTY/TDD) for additional information. Thank you very much. We greatly appreciate your participation.

Sincerely,

Gary W. Phillips

Gary W. Phillips
Acting Commissioner

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0666.

What is NPSAS:2000?

The National Postsecondary Student Aid Study is designed to describe how students and families meet the cost of education beyond high school. The study includes students (those who received financial aid and those who did not receive financial aid) from all types of postsecondary schools—less-than-2-year institutions, community colleges, 4-year colleges, and major universities. NPSAS collects information on student:

- Demographics
- Employment and family income
- Education and living expenses
- Financial aid, and
- Community service activities

Students who earn their bachelor's degree will also be part of a special follow-up study in 2001.

If you have additional questions or concerns about the study, please contact the NPSAS Project Director at RTI or the NCES Project Officer listed on the back of this leaflet.

What is NPSAS:2000?

Who is included in the study?

Why should I participate?

How long is the interview?

When will the study be conducted?

Will my answers be kept **Confidential**?

What have we learned from recent studies?

Can I get a copy of the **Results**?

Where Can I Get More Information About NPSAS:2000?

If you have questions about your rights as a participant, please call:

Dr. Wendy Visscher, RTI, 800-334-8571

If you have any questions or concerns about the study, contact the NPSAS Project Director or Project Officer:

RTI Project Director
Dr. John Riccobono
800-334-8571

NCES Project Officer:
Dr. Andrew Malizio
Andrew_Malizio@ed.gov
202-502-7387

You may also contact us by:
E-mail: NPSAS@rti.org
Fax: 800-875-2050 (toll free)
TDD: 877-212-7230 (toll free)

For more information about NPSAS and other educational research, point your browser to the NCES website: http://nces.ed.gov/NPSAS and click on publications.

April 2000
7306-300-370

2000
SAS
condary Student Aid Study
npSAS

Conducted for:
National Center for Education Statistics
U.S. Department of Education

Conducted under contract by:
Research Triangle Institute
Research Triangle Park, NC 27709-2194

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Who
is conducting the study?

NPSAS:2000 is conducted under contract for the U.S. Department of Education's National Center for Education Statistics (NCES) by Research Triangle Institute (RTI). RTI is a not-for-profit research organization in North Carolina. NPSAS:2000 is authorized by federal law under the National Education Statistics Act of 1994 (PL103-382).

Who is included in the study?

About 70,000 students have been selected randomly from enrollment lists at 1,100 postsecondary institutions in the United States and Puerto Rico.

Why should I participate?

Participation in this study is voluntary. Your participation, however, is essential to making this study a success.

By participating, you have the opportunity to help policymakers, researchers, counselors, and others better understand and meet the financial needs of postsecondary students in the United States and Puerto Rico.

In addition to describing characteristics of enrolled students, the data you and others provide will be used to decide future student financial aid policy.

How long is the interview?

The interview will last about 20 to 25 minutes. When we call, you can immediately complete the interview or schedule an appointment for a time that is more convenient for you.

When
will the study be conducted?

Interviewing for NPSAS:2000 is being conducted in the summer and fall of 2000.

Will my answers be kept
Confidential?

Yes. All information you or others provide will be used for research purposes only. Your responses are confidential and nothing you say will ever be reported in a way that allows you to be identified. Data collected will be used for statistical reports. No individual data will be reported.

Specific procedures we have implemented to ensure confidentiality include:

- All project staff with any access to study data are liable to severe fines and imprisonment for any disclosure of individual responses.
- All electronic data are maintained in secure and protected data files. All personally identifying information are in files separate from files containing descriptive information. No data released to the general public can be used to identify individual respondents.
- These procedures have been reviewed and approved by the federal government and by the RTI Committee for the Protection of Human Subjects.

What
have we learned from recent studies?

From the most recent NPSAS in 1995-96, we learned that:

- About 80 percent of all students also had a job while enrolled.
- Nearly seven out of every ten undergraduates who were enrolled full-time, for the full year received some financial aid, averaging about $6,800; about one out of four who were enrolled part-time for part of the year received some aid, averaging about $1,500.
- About three out of four graduate/professional students who were enrolled full-time for the full year received financial aid, averaging about $14,400; about three out of ten part-time, part-year graduate students received financial aid, averaging about $2,400.

Can I get a copy of the
Results?

Student Financing of Undergraduate Education, Profile of Undergraduates in U.S. Postsecondary Institutions, and Student Financing of Graduate and First-Professional Education will be available from the NPSAS website **http://nces.ed.gov/NPSAS** in fall 2001. These and other reports from the 1995-96 study are available and can be downloaded now.

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¿Qué es el NPSAS:2000?

El Estudio Nacional sobre Asistencia Económica para Estudiantes en Escuelas Post-secundarias (en inglés, NPSAS) se ha diseñado para revelar la manera en que estudiantes y sus familias pagan por educación post-secundaria. El estudio se administra a estudiantes (los que recibieron asistencia económica para estudiantes y los que no la recibieron) que asistieron a cualquier tipo de escuela post-secundaria --- institutos educativos con programas con duración de menos de dos años, community colleges, y universidades. NPSAS recopila información acerca de estudiantes como:

- Demográficas
- El empleo y los ingresos de la familia
- Gastos para la educación y el mantenimiento
- Asistencia económica para estudiantes y
- Actividades de servicio a la comunidad

Aquellos estudiantes quienes reciben su título universitario se les pedirá su participación en la segunda etapa del estudio en el año 2001.

Si tiene más preguntas o preocupaciones acerca del estudio, sírvase comunicarse con el Director del Proyecto en RTI o el Funcionario del Proyecto en NCES listados al dorso del folleto.

¿Quién está llevando a cabo el estudio?

¿Quién participa en el estudio?

¿Por qué debo participar?

¿Cuánto tiempo dura la entrevista?

¿Cuándo se realizará el estudio?

¿Se mantendrán mis respuestas **confidenciales**?

¿Qué se ha averiguado mediante estudios recientes?

¿Puedo recibir una copia de los **resultados**?

¿Dónde puedo obtener **más información** acerca del NPSAS:2000?

Si tiene preguntas acerca de los derechos de participantes en estudios de investigación, por favor póngase en contacto con:

Dra. Wendy Visscher, RTI, 800-334-8571

Si tiene cualquier pregunta o preocupación acerca del estudio, por favor póngase en contacto con el Director del Proyecto NPSAS o el Funcionario del Proyecto NPSAS:

Director del Proyecto en RTI:
Dr. John Riccobono
800-334-8571

Funcionario del Proyecto en NCES:
Dr. Andrew Malizio
Andrew_Malizio@ed.gov
202-502-7387

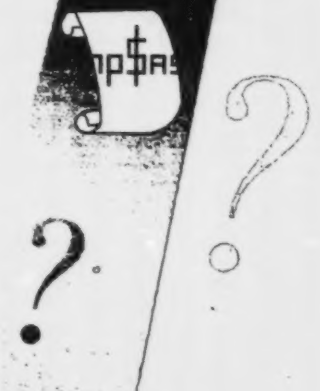
Además, sírvase comunicarse con nosotros por:
Correo electrónico: NPSAS@rti.org
Fax: 800-875-2050 (gratuito)
TDD: 877-212-7230 (gratuito)

Para obtener más información acerca de NPSAS y otras investigaciones en el campo de educación, visite la sede de NCES en el web: http://nces.ed.gov/NPSAS y haga clic en "publications."

April 2000
7306-300-370

NPSAS 2000

Estudio Nacional sobre Asistencia Económica para Estudiantes en Escuelas Post-secundarias:2000



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National Center for Education Statistics
U.S. Department of Education

Realizado por:
Research Triangle Institute
Research Triangle Park, NC 27709-2194

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¿Quién está llevando a cabo el estudio?

RTI está bajo contrato con el Centro Nacional de Estadísticas sobre la Educación (NCES) del Departamento de Educación de los Estados Unidos. RTI es una organización no lucrativa en Carolina del Norte. NPSAS:2000 está autorizado por la ley de Estadísticas Nacionales de Educación (PL 103-382).

¿Quién participa en el estudio?

Se han seleccionado aproximadamente 70,000 estudiantes al azar de listas de matriculación de 1,100 institutos educativos post-secundarios.

¿Por qué debo participar?

La participación en este estudio es voluntaria. Sin embargo su participación es importante para asegurar el éxito del estudio.

La participación en este estudio le proporciona la oportunidad de apoyar a las personas encargadas de formular la política, los investigadores, los psicólogos, y otros entender mejor y cumplir las necesidades de asistencia económica de estudiantes post-secundarios en los Estados Unidos y en Puerto Rico.

Los datos que usted proporciona se combinarán con los de otros estudiantes para ayudar a decidir como se reparte en el futuro la asistencia económica para estudiantes. También, hará posible saber las características de estudiantes matriculados.

¿Cuánto tiempo dura la entrevista?

La entrevista dura aproximadamente 25 minutos. En cuanto lo llamemos, usted puede realizar la entrevista en ese momento o fijar una fecha y hora que le convenga.

¿Cuándo se realizará el estudio?

Las entrevistas de NPSAS:2000 se realizarán durante el verano y el otoño del año presente.

¿Se mantendrán mis respuestas confidenciales?

Toda la información que proporcionan usted u otros participantes se usará sólo para el propósito de cumplir esta investigación. Sus respuestas se mantendrán confidenciales y ningún dato que usted revela se reportará en una manera que lo identifica. La información recopilada se usará para elaborar informes estadísticos. De ninguna manera se reportarán los datos de un solo participante.

Hemos puesto en práctica un procedimiento específico para asegurar que se mantengan confidenciales sus datos. Esto incluye:

- La revelación de respuestas de individuos por personal con acceso a datos de este estudio puede resultar en multas graves y encarcelamiento.
- Todos los datos electrónicos se mantienen en archivos seguros y protegidos, y toda la información personal que pueda identificar a un participante está en archivos separados de los que contienen información descriptiva. La información reportada al público general no se puede usar para identificar a un participante.
- El gobierno federal y el Comité para la Protección de Participantes en Estudios de Investigación de RTI ha revisado y aprobado este procedimiento.

¿Qué se ha averiguado mediante estudios recientes?

El estudio de NPSAS más reciente (1995-1996) indicó que:

- Aproximadamente 80 por ciento de estudiantes estuvieron empleados mientras matriculados.
- De cada diez estudiantes universitarios matriculados a tiempo completo durante el año entero, siete recibieron un promedio de $6,800 en asistencia económica para estudiantes; aproximadamente uno de cada cuatro estudiantes matriculados a tiempo parcial durante parte del año recibieron un promedio de $1,500 en asistencia económica para estudiantes.
- De cada cuatro estudiantes graduados o profesionales matriculados a tiempo completo durante el año entero, tres recibieron un promedio de aproximadamente $14,400 en asistencia económica para estudiantes; De cada diez, aproximadamente tres estudiantes graduados matriculados a tiempo parcial durante parte del año recibieron un promedio de $2,400 en asistencia económica para estudiantes.

¿Puedo recibir una copia de los resultados?

Tres informes. *Student Financing of Undergraduate Education, Profile of Undergraduates in U.S. Postsecondary Institutions,* y *Student Financing of Graduate and First-Professional Education*, estarán disponibles en inglés el otoño del año 2001 por la sede de NPSAS. La dirección es **http://nces.ed.gov/NPSAS.** Estos informes y otros que corresponden al estudio NPSAS:1995-1996 actualmente están disponibles en Inglés y se pueden bajar ahora.

BEST COPY AVAILABLE

¿Quién está llevando a cabo el estudio?

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BEST COPY AVAILABLE

SAMPLE MEMBER LETTER

{{DATE}}
«P_Fname» «p_mname» «p_lname»
«Addr1»
«Addr2»
«City», «State» «Zip»«Zip4»

Dear «p_fname» «p_lname»:

You've been selected to participate in an important study of students who continued their education beyond high school. RTI (Research Triangle Institute) of North Carolina is conducting the NPSAS (National Postsecondary Student Aid Study) for the U.S. Department of Education's National Center for Education Statistics. The purpose of the study is to describe how students and families meet the cost of education beyond high school. The study includes students from all types of postsecondary schools—less-than-2-year institutions, community colleges, 4-year colleges, and major universities. NPSAS collects information on student:

- Demographics
- Employment and family income
- Education and living expenses
- Financial aid, and
- Community service activities

An interviewer from RTI will phone you soon to conduct the interview, which will take about 20 to 25 minutes. Based on prior studies, you can shorten the interview time if you have any documents about your income and any financial aid you may have received during 1999-2000 available at the time of the interviewer's call. If you did not receive financial aid, we need to know how you paid your school expenses. For example, did you take out private loans, and/or receive employer tuition assistance or parental support? If you received student financial aid, we want to know whether you received enough to meet your education expenses. Policymakers will use the data to decide the amount and the types of federal student aid available in the future.

Participation in NPSAS is voluntary. Your responses, however, are important to make the results of this study accurate and timely. NCES and its contractors adhere to the highest standards in protecting your privacy. A limited number of researchers are authorized by NCES to access information that may identify individuals. They can use the data only for statistical purposes; and are subject to fines and imprisonment for misuse. No individual data that links your identity with your responses will be reported.

If you have comments about the accuracy of the time estimates or suggestions for improving the collection of information, write directly to: U.S. Department of Education, National Center for Education Statistics, NPSAS Project Officer #1850-0666, 555 New Jersey Ave NW, Washington, DC 20208. More information explaining the purpose of the study, procedures, and contact information is enclosed. Persons with hearing or speech impairments may call [toll free] 877-212-7230 (TTY/TDD) for additional information.

Thank you very much. We greatly appreciate your participation.

Sincerely,

Gary W. Phillips

Gary W. Phillips
Acting Commissioner

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0666.

SAMPLE MEMBER LETTER – SPANISH TRANSLATION

Usted fue seleccionado para participar en un estudio importante de estudiantes que continuaron sus estudios más allá de la escuela secundaria. RTI (Research Triangle Institute) en Carolina del Norte está realizando el Estudio Nacional sobre Asistencia Económica para Estudiantes en Escuelas Post-secundarias (en inglés, NPSAS) bajo contrato con el Centro Nacional de Estadísticas sobre la Educación (NCES) del Departamento de Educación de los Estados Unidos. El propósito del estudio es de revelar la manera en que estudiantes y sus familias pagan por educación post-secundaria. El estudio se administra a estudiantes que asistieron a cualquier tipo de escuela post-secundaria – institutos educativos con programas con duración de menos de dos años, community colleges, y universidades. NPSAS recopila información acerca de estudiantes como:

- Demográficas
- El empleo y los ingresos de la familia
- Gastos para la educación y el mantenimiento
- Asistencia económica y
- Actividades de servicio a la comunidad

Un entrevistador lo llamará pronto para realizar una entrevista que dura 20 a 25 minutos. Sabemos de estudios pasados que es posible reducir el tiempo que demora la entrevista si usted tiene disponible en el momento de nuestra llamada cualquier documento que elabora sus ingresos o la cantidad de asistencia económica para estudiantes que recibió durante 1999-2000. Nos gustaría saber la manera en que usted pagó por los gastos educativos si no recibió asistencia económica. Por ejemplo, ¿obtuvo un préstamo privado o recibió asistencia económica para la matrícula escolar de su empleador o lo apoyaron sus padres? En el caso que recibió asistencia económica para estudiantes, nos gustaría saber si completamente cubrió los gastos para la educación. Las personas encargadas de formular la política usarán esta información para decidir la cantidad así como los tipos de asistencia económica federal para estudiantes que serán disponible en el futuro.

La participación en la encuesta NPSAS es voluntaria. Sin embargo, sus respuestas son importantes para asegurar que los resultados del estudio son precisos. NCES y sus contratistas cumplen los estándares más altos para proteger su privacidad. NCES autorizará solamente a un grupo limitado de investigadores a tener acceso a información que se puede usar para identificar a individuos. Están permitidos a usar estos datos solamente para elaborar estadísticas. Si utiliza mal la información pueden estar sujetos a pagar multas graves y encarcelamiento. No se reportarán datos de individuos que unen la identidad personal a las respuestas.

Si tiene cualquier comentario acerca del cálculo preciso de tiempo que dura la entrevista o sugerencias para mejorar la entrevista, favor de comunicarse a la dirección: U.S. Department of Education, National Center for Education Statistics, NPSAS Project Officeer #1850-0666, 555 New Jersey Ave. NW, Washington, DC 20208. Adjuntado encuentre más información que explica el propósito del estudio, los procedimientos y otras maneras de comunicarse con RTI y NCES. Personas con un impedimento auditivo o de habla pueden llamar al número telefónico gratuito 877-212-7230 (TTY/TDD) para recibir más información.

Le agradecemos sinceramente su participación.

De acuerdo a la Ley de Reducción de Papeleo de 1995, ninguna persona está requerida a responder a una recolección de datos a menos que tenga un número válido de control otorgado por el OMB. El número válido de control otorgado por el OMB para esta recolección de datos es el 1850-0666.

E-MAIL LETTER

NPSAS ID: <caseid>

Dear <name>,

Hello, my name is John Riccobono, and I am Project Director for the National Postsecondary Student Aid Study:2000 (NPSAS:2000). NPSAS is being conducted for the U.S. Department of Education by Research Triangle Institute (RTI), a not-for-profit research organization in North Carolina. Your response is very important to the success of this study; unfortunately, we have been unable to reach you by telephone.

NPSAS includes more than 65,000 students selected randomly from enrollment lists at more than 1,000 postsecondary institutions in the United States and Puerto Rico. By participating, you have the opportunity to help education policymakers and practitioners better understand and meet the financial needs of students attending all types of postsecondary education.

Please reply to this e-mail and let us know the best telephone number and most convenient time to reach you. If you are currently residing outside of the United States, please contact us so we can make arrangements for an international call at our expense. You may also call into RTI for an interview at 1-800-472-6094. Ask for Marty Nash when you call and give the receptionist the ID number located in the top right corner of this message.

Any information you provide during your interview will be kept strictly confidential and will not affect any financial aid or other benefits you may receive.

If you have any questions or concerns about NPSAS or your participation, you may reply to this message or contact me directly at 1-800-334-8571 (ext. 7006). Thank you for assisting us in this important study.

John Riccobono, Ph.D.
Project Director

INCENTIVE OFFER LETTER – HARD TO REACH CASES

NPSAS ID: «caseid»

«fname» «mname» «lname»
«addr1»
«addr2»
«city», «state» «zip»-«zip4»

May 3, 2002

Dear «Fname» «Mname» «Lname»:

On behalf of the U.S. Department of Education, we would like to interview you for the National Postsecondary Student Aid Study (NPSAS); however, we have been unable to reach you by telephone to complete the interview. Information from this study is used to help determine federal policy regarding student financial aid. We realize that there are many demands for your time and that you have other priorities, but your participation in this study is very important. We would like to talk with you regardless of whether you have received financial aid or not.

We are interested in how students prepare for, make decisions about, and finance their post-secondary education. **I have enclosed $5.** Please call us [toll free] at **1-800-472-6094** for a brief interview. Please ask for Marty Nash and give the NPSAS ID number printed above when you call. When you complete your interview, **we will send you an additional $15**.

If I can provide any additional information or assistance about the study or your interview, please do not hesitate to contact me at 1-800-334-8571.

Thank you for your time and willingness to participate.

Sincerely,

John A. Riccobono

John A. Riccobono, Ph.D.
Project Director

INCENTIVE OFFER LETTER – HARD TO REACH CASES
SPANISH TRANSLATION

NPSAS ID: <<caseid>>

Nos gustaría entrevistarlo para el Estudio Nacional sobre Asistencia Económica para Estudiantes en Escuelas Post-secundarias (en inglés, el National Postsecondary Student Aid Study o NPSAS), de parte del Departamento de Educación de los Estados Unidos. Desafortunadamente, no hemos logrado comunicarnos con usted por teléfono para realizar la entrevista. Los datos de este estudio se utilizarán para ayudar formular la política federal respecto a la asistencia económica estudiantil. Sabemos que tiene muchas obligaciones y exigencias, pero su participación en este estudio es muy importante. Nos gustaría entrevistarlo si usted ha recibido asistencia económica o no.

Nos gustaría saber la manera en que los estudiantes se preparan, toman decisiones y cubren los gastos relacionados a la educación post-secundaria. **Hemos adjuntado $5**. Favor de llamarnos gratuitamente al número **1-800-472-6094** para realizar una entrevista breve. Por favor pida hablar con Marty Nash e indique el número de identificación de NPSAS imprimido en la esquina derecha superior de esta página cuando llame. Una vez que complete su entrevista, **le enviaremos $15 más**.

Si desea más información o asistencia respecto al estudio o a su entrevista, favor de comunicarse con el director del estudio, Dr. John Riccobono, por teléfono al número 1-800-334-8571.

Le agradecemos su tiempo y por estar dispuesto a participar.

INCENTIVE OFFER LETTER – REFUSAL CASES

NPSAS ID: «caseid»

«UCfullname»
«addr1»
«addr2»
«city», «state» «zip»-«zip4»

May 3, 2002

Dear «Fname» «Mname» «Lname»:

I understand that you recently spoke with a member of our project staff for the National Postsecondary Student Aid Study (NPSAS) that we are conducting for the U.S. Department of Education. Information from this study is used to help determine federal policy regarding student financial aid. We realize that there are many demands for your time and that you have other priorities, but your participation in this study is very important. We would like to talk with you regardless of whether you have received financial aid or not.

We are interested in how students prepare for, make decisions about, and finance their post-secondary education. **I have enclosed $5.** Please call us [toll free] at **1-800-472-6094** for a brief interview. Please ask for Barbara Rogers and give the NPSAS ID number printed above when you call. When you complete your interview, **we will send you an additional $15**.

If I can provide any additional information or assistance about the study or your interview, please do not hesitate to call me at 1-800-334-8571

Thank you for your time and willingness to participate.

Sincerely,

John A Riccobono

John A. Riccobono, Ph.D.
Project Director

INCENTIVE OFFER LETTER – REFUSAL CASES
SPANISH TRANSLATION

NPSAS ID: <<caseid>>

Entendemos que recientamente usted habló con un miembro del personal del Estudio Nacional sobre Asistencia Económica para Estudiantes en Escuelas Post-secundarias (en inglés, el National Postsecondary Student Aid Study o NPSAS), lo que estamos realizando de parte del Departamento de Educación de los Estados Unidos. Los datos de este estudio se utilizarán para ayudar formular la política federal respecto a la asistencia económica estudiantil. Sabemos que tiene muchas obligaciones y exigencias, pero su participación en este estudio es muy importante. Nos gustaría entrevistarlo si usted ha recibido asistencia económica o no.

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Le agradecemos su tiempo y por estar dispuesto a participar.

Appendix C
Endorsements

Agency and Association Endorsements

for the National Postsecondary Student Aid Study (NPSAS: 2000)

American Association of Collegiate Registrars and Admissions Officers

American Association of Community Colleges

American Association of State Colleges and Universities

American Council on Education

Career College Association

Council of Graduate Schools

The College Board

National Accrediting Commission of Cosmetology Arts and Sciences, Inc.

National Association of College and University Business Officers

National Association of State Universities and Land-Grant Colleges

National Association of Student Financial Aid Administrators

National Institute of Independent Colleges and Universities

Appendix D
Contents of Training Materials

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Field Data Collector (FDC) Training
NPSAS: 2000

Day 1

Computer Introduction Training

1:00 – 5:00	**Introduction to laptop computers**
5:00 – 8:00	**Registration for Field Data Collectors**

Day 2

Project Training

8:30 – 8:45	**Welcome and Introduction**
8:45 – 9:00	**Overview of Training Objectives**
9:00 – 9:30	**The NPSAS Project - Past and Present**
9:30 – 10:00	**NPSAS: 2000 Institutional Contacting**
10:00 – 10:15	**BREAK**
10:15 – 11:15	**Student Financial Aid Process and Practices**
11:15 – 12:00	**Uses of the NPSAS Data**
12:00 – 1:00	**LUNCH**
1:00 – 1:30	**FDC Responsibilities** - Contact with Institutional Coordinator - Confidentiality
1:30 – 1:45	**Introduction to Case Management System** -Overview -Selecting an Institution
1:45 – 3:00	**CADE Demonstration: Case #1**
3:00 – 3:15	**BREAK**
3:15 – 5:00	**CADE Demonstration: Case #1** Continued

Field Data Collector (FDC) Training
NPSAS: 2000

Draft Agenda

Day 3

8:30 – 9:15	**Distribution of Computers**
9:15 – 12:15	**CADE: Sections and Subsections (Case # 2)**
9:15 – 9:30	**Registration:** Locating Subsection
9:30 – 9:45	**Registration:** Characteristics Subsection
9:45 – 10:00	**Registration:** Admissions Subsection
10:00 – 10:15	**BREAK**
10:15 – 10:45	**Enrollment:** Enrollment Subsection
10:45 – 11:00	**Enrollment:** Tuition Subsection
11:00 – 11:30	**Financial Aid:** Financial Aid Subsection
11:30 – 12:00	**Financial Aid:** Need Analysis Subsection
12:00 – 12:15	**Financial Aid:** ISIR Subsection
12:15 – 1:15	**LUNCH**
1:15 – 2:30	**Round Robin: Case # 3**
2:30 – 3:00	**Postsecondary Institution Environment**
3:00 – 3:15	**BREAK**
3:15 – 4:30	**Data Collection Process in Depth**
4:30 – 5:00	**Making Travel Arrangements**
5:00	**Adjourn**
7:00 – 9:00	**Study Hall (as needed)**

Field Data Collector (FDC) Training
NPSAS: 2000

Draft Agenda

Day 4

8:30 – 9:30	**In Depth Look at the Case Management System**
9:30 – 10:00	**Round Robin: Case #4**
10:00 – 10:15	**BREAK**
10:15 – 11:15	**Round Robin: Case #4 Continued**
11:15 – 12:15	**E-Mail**
12:15 – 1:15	**LUNCH**
1:15 – 3:15	**Individual Practice: Case #5**
3:15 – 3:30	**BREAK**
3:30 – 4:30	**Transmission of Data**
4:30 – 5:00	**Homework Assignment – Case #8** **Review and Questions and Answers**
5:00	**Adjourn**
7:00 – 9:00	**Study Hall (as needed)**

Field Data Collector (FDC) Training
NPSAS: 2000

Draft Agenda

Day 5

8:30 – 9:00	**Review of Homework – Case #8**
9:00 – 10:00	**Administrative Procedures**
10:00 – 10:15	**BREAK**
10:15 – 12:00	**Individual Practice: Case #6 and FS Conference**
12:00 – 1:00	**LUNCH**
1:00 – 1:30	**Role Play: The Institutional Coordinator Call**
1:30 – 3:00	**Certification Exercise: Case #9**
3:00 – 3:15	**BREAK**
3:15 – 4:00	**Review of Case #9**
4:00 – 4:45	**Review of All Previous Cases** **Questions and Answers**
4:45 – 5:00	**Training Evaluation**
5:00	**Adjourn**

Take home exercises: Case #7 & Case #10

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NPSAS:2000
TELEPHONE INTERVIEWER TRAINING AGENDA
(June 27-July 1, 2000)

Tuesday		240 minutes	6:00p-10:00p
	Welcome and Introduction of TIs	15 minutes	6:00p - 6:15p
Topic 1	Overview of NPSAS:2000 (Power Point Presentation) - Background and purpose of NPSAS - Study design - Types of questions included - Introduction of project staff	20 minutes	6:15p - 6:35p
Topic 2	Overview of the Training Session - Training agenda and rules	10 minutes	6:35p - 6:45p
Topic 3	Confidentiality and Informed Consent - Review Signed forms	15 minutes	6:45p - 7:00p
Topic 4	**Demonstration Interview: Audiotaped with** dataview projection of screens (Karen Howlett profile)	**25 minutes**	**7:00p - 7:25**
Topic 4	Question and Answer sheet review (round robin)	20 minutes	7:25p - 7:45p
BREAK		15 minutes	7:45p - 8:00p
Topic 5	NPSAS Questionnaire Review of Q-by-Qs -Sections A, B, C,	75 minutes	8:00p - 9:15p
	Round Robin Mock Interview (Lorenza Gibbs Profile) Sections A, B, C (as time permits)	35 minutes	9:15 - 9:50p
	Production Sheet Discussion and Entry	10 minutes	9:50p -10:00p

Wednesday		240 minutes	6:00 - 10:00p
	Question and Answer sheet review (round robin)	15 minutes	6:00p - 6:15p
Topic 5	NPSAS Questionnaire Q-by-Q Review (Continued) Sections D, E, F, G	90 minutes	6:15p - 7:45p
BREAK		15 minutes	7:45p - 8:00p
	Round Robin Mock Interview (Lorenza Gibbs Profile) Sections D, E, F, G (*start where left off on Tuesday*)	50 minutes	8:00p - 8:50p
Topic 7	Overview of User Exits in Questionnaire - For each (IPEDS; Major; Occ/Industry; Enrollment): **Conceptual overview diagram** Screen-by-screen review on dataview Hands-on navigation practice	60 minutes	8:50p - 9:50p
	Production Sheet Entry	10 minutes	9:50p -10:00p

Thursday		240 minutes	6:00p - 10:00p
	Question and Answer sheet review (round robin)	15 minutes	6:00p - 6:15p
Topic 8	Round Robin Mock (Juan Ramirez profile)	60 minutes	6:15p - 7:15p
Topic 9	User Exits Review and Written Exercises	45 minutes	7:15p - 8:00p
BREAK		15 minutes	8:00p - 8:15p
Topic 10	NPSAS Front End Module Overview of Contacting/locating procedures Intro to roster line concept (on data view) QxQ Review Examples on Dataview	30 minutes	8:15p - 8:45p
	NPSAS Front End Practice	65 minutes	8:45p - 9:50p
	Production Sheet Entry	10 minutes	9:50p -10:00p

Friday

120 minutes 5:00p - 9:00p

Structured Individual Practice at 300 Park TSU Facility*
- Orientation to TSU Facility
- Structured Practice
- Listen to interview in client room

**Interviewers will be required to sign up for a 2-hour block of time between 5pm and 9pmto complete their structure practice.*

Saturday

450 minutes 9:00a - 4:30p

	Question and Answer sheet review (round robin)	15 minutes	9:00a - 9:15a
Topic 11	**More Contacting/Locating/Front-end Practice**	**45 minutes**	**9:15a - 10:00a**
Topic 12	Round Robin Mock (Suzanne Liu profile)	45 minutes	10:00a - 10:45a
BREAK		15 minutes	10:45a - 11:00a

SMALL GROUP ACTIVITY SESSION 1	**75 minutes**	**11:00a-12:15p**
Group A: Topic 15	Refusal Avoidance - Brief overview of reluctant respondent behavior - Review / Critique of audiotaped refusal scenarios - Question & Answers written exercise	
Group B: Topic 16	More User Exit Practice and Coding	
Group C: Topic 17	Certification: Contacting/Locating/Interviewing - Paired Mock (Patricia O'Conner Profile)	

LUNCH	45 minutes	12:15p-1:00p

SMALL GROUP ACTIVITY SESSION 1	**75 minutes**	**1:00a-2:15p**
Group B: Topic 15	Refusal Avoidance - Brief overview of reluctant respondent behavior - Review / Critique of audiotaped refusal scenarios - Question & Answers written exercise	
Group C: Topic 16	More User Exit Practice and Coding	
Group A: Topic 17	Certification: Contacting/Locating/Interviewing - Paired Mock (Patricia O'Conner Profile)	

BREAK		15 minutes	2:15p – 2:30p

SMALL GROUP ACTIVITY SESSION 1		**75 minutes**	**2:30a-3:45p**
Group C: Topic 15	Refusal Avoidance - Brief overview of reluctant respondent behavior - Review / Critique of audiotaped refusal scenarios - Question & Answers written exercise		
Group A: Topic 16	More User Exit Practice and Coding		
Group B: Topic 17	Certification: Contacting/Locating/Interviewing - Paired Mock (Patricia O'Conner Profile)		

Topic 14	NPSAS Quality Control Procedures - Monitoring - Reporting problems/Electronic Problem Sheets - QC Meetings	15 minutes	3:45p- 4:00p
Topic 18	Question and Answer Session	20 minutes	4:00p - 4:20p
(TSU Assistant)	*Production Sheet Entry*	10 minutes	4:20p – 4:30p

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Appendix E
CADE Facsimile

For each eligible student, please provide the following data.

I. REGISTRATION/ADMISSIONS

A. Locating Information Subsection

Question Number	Description
Question 1.	Student's PERMANENT phone number [area code+prefix +number] Student's PERMANENT address Student's PERMANENT city Student's PERMANENT state Student's PERMANENT zip code Student's PERMANENT country (if not USA)
Question 2.	Is there a local address for the student that is DIFFERENT from the permanent address? [y/n]
Question 3.	Student's LOCAL phone number [area code +prefix + number] Student's LOCAL address Student's LOCAL city Student's LOCAL state Student's LOCAL zip code
Question 4.	FIRST NAME, MIDDLE initial, LAST NAME, and SUFFIX of parent for whom locating information is available.
Question 5.	Is address/phone information available for parents of the student? [y/n]
Question 6.	For parent named in Question 5. *(You will get the option of choosing student□s address for the parent□s address.)* PARENT'S phone number [area code + number] PARENT'S address PARENT'S city PARENT'S state PARENT'S zip code PARENT'S country (if not USA)
Question 7.	Is other phone/address information (DIFFERENT from what was previously entered) available for another parent, a relative or friend of the student? [y/n]
Question 8.	FIRST NAME, MIDDLE Initial, LAST NAME, and SUFFIX of *parent* or *relative/friend* for whom locating information is available.
Question 9.	Relationship of *parent* or *relative/friend* to STUDENT. 1. FATHER 7. AUNT 2. MOTHER 8. GRANDFATHER 3. SPOUSE 9. GRANDMOTHER 4. BROTHER 10. FRIEND 5. SISTER 11. CO-WORKER 6. UNCLE 12. OTHER (SPECIFY)
Question 10.	For *parent* or *relative/friend*, please provide: Last Name, First Name, Middle Initial Phone number [area code + number] Address City State Zip Code Country

B. Student Characteristics Subsection

Question Number	Description
Question 1.	Student's LAST name Student's FIRST name Student's MIDDLE initial Student's suffix (e.g., Jr., III)
Question 2.	Students social security number
Question 3.	Student's date of birth
Question 4.	Student's gender (Use key below) 1. Male 2. Female
Question 5.	Student's driver's license number and state.
Question 6.	Student's marital status (Use key below) 1. Not married (single, widowed, divorced) 2. Married 3. Separated If married and female, please also provide: Student's maiden name If married, please also provide: Spouse's name (Last, First, Middle)
Question 7.	Student's high school degree (Use key below) 1. High school diploma 2. GED or other equivalency 3. Certificate of high school completion 4. Foreign high school 5. No high school degree or certificate
Question 7a.	Year Student Received High School Diploma/GED/Certificate
Question 8.	What is the student's ethnicity? (Use key below) 1=Hispanic or Latino 2=Not Hispanic or Latino
Question 9.	What is the student's race (Choose one or more) 1. White 2. Black or African American 3. Asian 4. American Indian or Alaska Native 5. Native Hawaiian or Other Pacific Islander
Question 10.	What is the student's citizenship status? (Use key below) 1. U.S. citizen or U.S. National 2. Resident alien 3. Foreign/International student or non-resident alien
Question 11.	Is the student a veteran of the U.S. Armed Forces? [y/n]

C. Admissions Information Subsection

For Undergraduates (including B&B cohort):

Question Number	Description
Question 1.	Is an SAT score available? [y/n] If yes: Student's SAT verbal score Student's SAT math score Year SAT taken
Question 2.	Is an ACT score available? [y/n] If yes: Student's composite ACT score Year ACT taken
Question 3.	Did the student take any admissions tests other than the SAT or ACT; such as ASSET, TABE, CPAT, CPT? [y/n]

For Graduate, Doctoral, and First Professional Students:

Question 1.	Are scores from the Graduate Record Exam (GRE) available for this student? [y/n] If yes: Student's GRE verbal score Student's GRE quantitative score Student's GRE analytic score Year GRE taken
Question 2.	Is other admissions test score available? [y/n]
Question 3.	Select the test from the list below. 1. DAT 2. GMAT 3. LSAT 4. MCAT 5. Miller's Analogies 6. Other test (specify)
Question 4.	*(If test chosen is GMAT, MCAT, or LSAT:)* Enter the test scores.

II. ENROLLMENT/TUITION SECTION

1. Enrollment Term Sub-Section *[MUST BE COMPLETED BEFORE TUITION SUB-SECTION]*	
	If student was enrolled in a course for credit at any time during the study period (July 1, 1999, and June 30, 2000) list all terms for which the student was enrolled and provide the following information for each term: Name of term or payment period [EX: Fall, 1999] Start date of that term/period [mm/yr] End date of that term/period [mm/yr] Attendance status (use key below): 1 = Full-time (12 or more credits) 2 = Half-time (6 to 11 credits) 3 = Less than Half-time (5 or less credits) *(If school is not a clock-hour school:)* Credit hours [number]

Question Number	Description
Question 1.	During [LAST TERM ENROLLED], in what type of degree program was the student enrolled (Use key below): 1 = Associate's degree program 2 = Bachelor's degree program 3 = Undergraduate Certificate or other formal award 4 = Undergraduate, non-degree program 5 = Graduate/Post-Baccalaureate certification program (including Teacher certification) 6 = Master's degree program 7 = Doctoral or First Professional degree program 8 = Graduate, Other (including non-degree programs)
Question 2.	*(Only applicable to students in Master's Degree program)* Which of the following Masters degrees was the student working toward during [LAST TERM ENROLLED]? (Use key below) 1. Masters of Business Administration (MBA) 2. Masters of Science (MS) 3. Masters of Arts (MA) 4. Masters of Education (M.Ed) 5. Masters of Public Administration (MPA) 6. Masters of Arts in Library Sciences (MLS) 7. Masters of Public Health (MPH) 8. Masters of Fine Arts (MFA) 9. Masters of Applied Arts (MAA) 10. Masters of Arts in Teaching (MAT) 11. Masters of Divinity (M.Div) 12. Masters of Social Work (MSW) 13. Masters of Landscape Architecture (MLA) 14. Masters of Professional Management MPM) Other Masters Degree; not listed above
Question 2.	*(Only applicable to students in Doctoral or FP program)* Which of the following doctoral or First Professional degrees was the student working toward during [LAST TERM ENROLLED]? (Use key below); DOCTORAL DEGREES 1. Doctor of Philosophy (PhD) 2. Doctor of Education (Ed.D) 3. Doctor of Theology (ThD) 4. Doctor of Business Administration (DBA) 5. Doctor of engineering (D.Eng) 6. Doctor of Fine Arts (DFA) 7. Doctor of Public Administration (DPA) 8. Doctor of Science (Dsc/ScD) 9. Other Doctoral Degree SPECIFY: ____________________ FIRST PROFESSIONAL DEGREES 10. Chiropractic (DC or DCM) 11. Dentistry (DDS or DMD) 12. Medicine (MD) 13. Optometry (OD) 14. Osteopathic Medicine (DO) 15. Pharmacy (Pharm. D) 16. Podiatry (DPM or Pod. D) 17. Veterinary medicine (DUM) 18. Law (LLB or JD) 19. Theology (M.Div., MHL, BD)

Question Number	Description
Question 3.	During [LAST TERM ENROLLED], what was this student's class level? (Use key below) 1 = 1st Year/Freshman 2 = 2nd Year/Sophomore 3 = 3rd Year/Junior 4 = 4th Year/Senior 5 = 5th Year or Higher Undergraduate 6 = Undergraduate (unclassified) 7 = Student with advanced degree taking undergraduate courses 8 = 1st year Graduate/professional 9 = 2nd year Graduate/professional 10 = 3rd year Graduate/professional 11 = Beyond 3rd year Graduate/professional
Question 3a.	*(For students who were listed as undergraduates on the institution enrollment list but then are identified as being in a graduate or first professional program in CADE:)* Has this student received a baccalaureate degree from this institution since July 1, 1999 prior to enrolling in the graduate or first professional program? (y/n)
Question 4	Cumulative GPA
Question 5.	What is the student's current or most recent major or field of study? (In some cases, this will be filled automatically filled based on type of Masters, Doctoral, or First Professional degree program)
Question 6.	When did this student FIRST enroll at [YOUR INSTITUTION]? (mm/yr)
Question 7.	Has this student completed the requirements for the [DEGREE]? [y/n] (applicable if student is in a degree program)
Question 8.	If the requirements have been completed, will the [DEGREE] be awarded on or before August 31, 2000? [y/n]
	For CLOCK HOUR Institutions ONLY.
Question 9.	What is the total length of the program in clock/contact hours? [Specify hours]
Question 10.	How many hours (lab and classroom) are required per week? [Specify hours]

B. Tuition Charges

Question 1.	For each term attended by the student (those terms identified in the Enrollment/Term Sub-section above), specify amounts of tuition and fees charged. Please provide separate amounts for each term, if available.
Question 2.	Total tuition and fees charged for all terms.
Question 3.	*(If the institution is public:)* For tuition purposes, this student was classified as: (Use key below) 1. In jurisdiction (e.g., in-state, in-district, etc.) 2. Out-of-jurisdiction (e.g., out-of-state, out-of-district, etc.)

III. FINANCIAL AID INFORMATION

A. Financial Aid Awards

Question 1.	Did the student receive any financial aid, such as: → Assistantships → grants → scholarships → loans → fellowships → work study → tuition waivers → tuition discounts → veterans benefits → other financial aid
	for terms or courses in which they were enrolled between July 1, 1999 and June 30, 2000? [y/n] (Some portion of the term must occur between these dates but may start prior to July 1 or end after June 30.

Question Number	Description
	IF NO, YOU HAVE COMPLETED THIS SUBSECTION
Question 2.	Did the student receive any federal aid, such as: [y/n]
Question 3.	Please enter the amounts of federal financial aid received by the student within each program. **Federal Aid Programs** 1. Pell Grant program 2. Stafford Loan – subsidized (FFEL or Direct) 3. Stafford Loan – unsubsidized (FFEL or Direct) 4. PLUS parent loan (FFEL or Direct) 5. Perkins loan 6. Federal SEOG grant 7. Federal work-study (FWS) 8. Robert Byrd honors scholarship 9. Federal health professions loans (Nursing, HPSL, Primary Care, Disadvantaged) 10. Federal health professions Disadvantage Student Scholarships (SDS)
Question 4.	Did the student receive any state aid, such as: (customized list for each state) [y/n]
Question 5.	*(If yes, enter amounts.)* **State Aid Programs (List up to 10 awards)** A. *Customized for each state* B. *Customized for each state* C. *Customized for each state* D. *Customized for each state* E. *Customized for each state* F. *Customized for each state* G. *Customized for each state* H. *Customized for each state* I. *Customized for each state* J. *Customized for each state* *NOTE: State Aid Programs vary by state. Please refer to CADE for the specific items which should be included here for your institution.*
Question 6.	Did the student receive any institutional aid, such as: [y,n]
Question 7.	*(If yes, enter amounts.)* **Institutional Financial Aid** A. *Customized for each institution* B. *Customized for each institution* C. *Customized for each institution* D. Other grants and scholarships: need-based E. Other grants and scholarships: merit-based only F. Other grands and scholarships: both need and merit G. Athletic scholarship H. UG Tuition waivers for faculty/staff, family I. Tuition waivers and discounts for other undergraduates J. Undergraduate institutional loan K. Undergraduate institutional work-study L. Undergraduate resident assistants, tutors, or advisor stipends *NOTE: Undergraduate institutional aid – Items A, B, and C, vary by institution and will be blank if aid was not preloaded for this institution.*

Question Number	Description
Question 8.	Did the student receive any graduate institutional aid, such as: [y,n]
Question 9.	*(If yes, enter amounts.)* **Graduate Institutional Financial Aid** A. Graduate fellowship or scholarship B. Federal fellowship (NSF, NASA, NIH, USDA, etc.) C. Federal traineeship D. Teaching assistantships/stipends E. Research assistantships/stipends F. Other graduate assistants, tutors, or readers stipends G. Tuition waivers for graduate students (including assistants) H. Tuition waivers for faculty/staff, spouse or children I. Institutional work-study J. Institutional loan
Question 10.	Did the student receive any other aid, such as: [y/n]
Question 11.	*(If yes, enter amounts.)* A. Scholarships/grants from private organizations, foundations, unions B. Employer paid tuition C. Veteran benefits D. ROTC and grants for Armed Forces personnel E. JTPA, other job training, vocational rehabilitation F. Bureau of Indian Affairs grants G. Scholarships/grants from state agencies in other states H. Private or commercial loans (including Law, Medical, TERI, Nellie Mae)
Question 12.	**List of Other Financial Aid**
	Please also report any other financial aid awarded to the student, provide: 1. the *name* of the award 2. the *type* of award (Use key below) 1. Grant/scholarship: need-based 2. Grant/scholarship: merit-based 3. Grant/scholarship: both need and merit 4. Tuition waiver 5. Loan 6. Work-study or assistantship 7. Other 3. the *source* of the award (Use key below) 1. Institution 2. State 3. Federal 4. Other 4. the *amount* of the award
3. Need Analysis	
Question 1.	Is there financial aid budget information or a Federal Expected Family Contribution (EFC) value available for the student? [y/n]
IF NO, YOU HAVE COMPLETED THIS SUB-SECTION	

Question Number	Description
Question 2.	What was the student;s dependency status during the study year for federal financial aid purposes? (Use key below) 1. Dependent 2. Independent
Question 3.	For purposes of determining the student;s financial aid budget, was the student;s local residence .. ? (Use key below) 1. On-campus or school-owned housing 2. Off-Campus without parents 3. Off-Campus with parents
Question 4.	Please provide the Federal Expected Family Contribution (EFC) amount for the student.
Question 5.	Is there a Cost of Attendance or Student Expense Budget available for this student? [y/n]
Question 6	Please provide line-item budget amounts (if only a total budget amount is available, please provide the total amount; line-item amounts are preferred over a total amount). 1. Tuition and fees 2. Books and supplies 3. Room and board 4. Transportation 5. Computer technology fees 6. All other expenses OR Total Cost of Attendance
Question 7	For what period does this budget apply? (Use key below) 1. Full time, full year 2. Full time, one term 3. Part time, full year 4. Part time, one term 5. Other - Specify
Institution Student Information Record	
1.	Is there an Institution Student Information Record (ISIR) or computerized ISIR data available for this student (y/n)?
2.	Student's social security number from the ISIR
3.	Student's last name from ISIR.

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Appendix F
CATI Facsimiles

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Section A: Study Eligibility and Enrollment

NAELIG

Were you enrolled at [YNPSCHL] at any time between July 1, 1999 and June 30, 2000?
IF NO, PROBE TO SEE IF RESPONDENT WAS ENROLLED AND LEFT.BE ALERT FOR INDICATIONS THAT THE RESPONDENT IS STILL IN HIGH SCHOOL (ONLY TAKING ADVANCED PLACEMENT CLASSES, ETC. AT THE NPSAS SCHOOL) - IF SO, ENTER 4.
1 = YES
2 = NO
3 = DROPPED OUT
4 = STILL IN HIGH SCHOOL
Applies to: All respondents.

NADRP

Date left NPSAS school - YYYYMM
Applies to: Respondents who dropped out of NPSAS school.

NADRPREF

Did you receive a full refund of your tuition when you left?
1 = YES
2 = NO
Applies to: Respondents who dropped out of NPSAS school.

NADEGN

What degree or certificate were you working on while you attended [YNPSCHL] during the 1999-2000 school year?
1 =CERTIFICATE
2 =ASSOCIATE'S DEGREE (AS, AA)
3 =BACHELOR'S DEGREE (BA, BS, BFA, etc.)
4 =UNDERGRAD SPECIAL STUDENT (NON-DEGREE/NON-MATRICULATED)
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 =DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD,EDD, JD, MD, DDS, etc.)
8 =GRADUATE SPECIAL STUDENT (NON-DEGREE/NON-MATRICULATED)
Applies to: All respondents.

NAELCRD

Were you enrolled in a course for credit that could be transferred to another school?
1 = YES
2 = NO
Applies to: Respondents not enrolled in a certificate or degree program.

NAEVREN

Have you ever attended [YNPSCHL]?
1 = YES
2 = NO
Applies to: Sample members with unknown study eligibility.

NAATT

Date last attended NPSAS school - YYYYMM
Applies to: Sample members with unknown study eligibility.

NACMPGN

Have you completed all the requirements for your [NADEGFIL]?
1 = YES
2 = NO
Applies to: All respondents enrolled in a degree or certificate program.

NAEXPN

Date expect degree NPSAS school - YYYYMM
Applies to: Respondents who have not completed degree at NPSAS.

NADGN

Date awarded degree NPSAS school - YYYYMM
Applies to: Respondents who have completed degree at NPSAS.

NAOTHC1

Have you attended any other schools since July 1, 1999?
1 = YES
2 = NO
Applies to: All respondents.

NAS1UX

Where else did you attend (during the 99-2000 school year)?
0 = NO OTHER SCHOOLS
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT
Applies to: Respondents enrolled in other school 1 in the NPSAS year.

NAENRD1

Were you taking courses leading to a degree or certificate to be awarded by [NAS1NAME]?
1 = YES
2 = NO
Applies to: Respondents enrolled in other school 1 in the NPSAS year.

NADEG1

What degree or certificate were you working on?
1 =CERTIFICATE
2 =ASSOCIATE'S DEGREE (AS, AA)
3 =BACHELOR'S DEGREE (BA, BS, BFA, etc.)
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 =DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD, EDD, JD, MD, DDS, etc.)
Applies to: Respondents in a degree program who enrolled at other school 1 in the NPSAS year.

NACMPG1

Have you completed all the requirements for your bachelor's degree?
1 = YES
2 = NO
Applies to: Respondents working on bachelor's degree at other school 1 during the NPSAS year.

NAEXP1

Date expect degree school 1 - YYYYMM
Applies to: Respondents who have not completed a bachelor's degree at other school 1.

NADG1

Date awarded degree school 1 - YYYYMM
Applies to: Respondents who have completed a bachelor's degree at other school 1.

NAOTHC2

Have you attended any other schools since July 1, 1999?
1 = YES
2 = NO
Applies to: Respondents enrolled in other school 1 in the NPSAS year.

NAS2UX

Where else did you attend (during the 99-2000 school year)?
0 = NO OTHER SCHOOLS
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT
Applies to: Respondents enrolled in other school 2 in the NPSAS year.

NAENRD2

Were you taking courses leading to a degree or certificate to be awarded by [NAS2NAME]?
1 = YES
2 = NO
Applies to: Respondents enrolled in other school 2 in the NPSAS year.

NADEG2

What degree or certificate were you working on?
1 =CERTIFICATE
2 =ASSOCIATE'S DEGREE (AS, AA)
3 =BACHELOR'S DEGREE (BA, BS, BFA, etc.)
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 =DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD, EDD, JD, MD, DDS, etc.)
Applies to: Respondents enrolled in a degree program at other school 2.

NACMPG2

Have you completed all the requirements for your bachelor's degree?
1 = YES
2 = NO
Applies to: Respondents working on bachelor's degree at other school 2 during the NPSAS year.

NAEXP2

Date expect degree school 2 - YYYYMM
Applies to: Respondents who have not completed a bachelor's degree at other school 2.

Section A: Study Eligibility and Enrollment

NADG2
Date awarded degree school 2 - YYYYMM
Applies to: Respondents who have completed a bachelor's degree at other school 2.
I

NAOTHC3
Have you attended any other schools since July 1, 1999?
1 = YES
2 = NO
Applies to: Respondents enrolled in other school 2 in the NPSAS year.

NAS3UX
Where else did you attend (during the 99-2000 school year)?
0 = NO OTHER SCHOOLS
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT
Applies to: Respondents enrolled in other school 3 in the NPSAS year.

NAENRD3
Were you taking courses leading to a degree or certificate to be awarded by [NAS3NAME]?
1 = YES
2 = NO
Applies to: Respondents enrolled in other school 3 in the NPSAS year.

NADEG3
What degree or certificate were you working on?
1 =CERTIFICATE
2 =ASSOCIATE'S DEGREE (AS, AA)
3 =BACHELOR'S DEGREE (BA, BS, BFA, etc.)
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 =DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD, EDD, JD, MD,DDS, etc.)
Applies to: Respondents enrolled in a degree program at other school 3.

NACMPG3
Have you completed all the requirements for your bachelor's degree?
1 = YES
2 = NO
Applies to: Respondents working on bachelor's degree at other school 3 during the NPSAS year.

NAEXP3
Date expect degree school 3 - YYYYMM
Applies to: Respondents who have not completed a bachelor's degree at other school 3.

NADG3
Date awarded degree school 3 - YYYYMM
Applies to: Respondents who have completed a bachelor's degree at other school 3.

NAPRDG
[if NACMPGN eq <1> or NACMPG1 eq <1> or NACMPG2 eq <1> or NACMPG3 eq <1>] Other than the [fill degree] that you've already told me about, have you earned any \ [if NACMPGN eq <1> or NACMPG1 eq <1> or NACMPG2 eq <1> or NACMPG3 eq <1>] other degrees or certificates since you left high school?
1 = YES
2 = NO
Applies to: All respondents.

NABA
[if NADEGN gt <4> and (NAPRDG eq <2> and NACMPG1 ne <1>)]
Have you earned a Bachelor's degree?
1 = YES
2 = NO
[if NADEGN gt <6> and (NAPRDG eq <2> and NACMPG1 ne <1>)]
A Master's Degree?
1 = YES
2 = NO
Applies to: Graduate students who report no prior degrees.

Section A: Study Eligibility and Enrollment

NAPRD1A

What degrees or certificates have you earned? COLLECT UP TO FOUR (4). ENTER 0 FOR NO MORE.

1 =CERTIFICATE
2 =ASSOCIATE'S DEGREE (AS, AA)
3 =BACHELOR'S DEGREE (BA, BS, BFA, etc.)
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 =DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD, EDD, JD, MD, DDS, etc.)

Applies to: Respondents who have indicated prior degrees.

NAPRD1B

Prior degree earned since high school-2
See NAPRD1A for description.

Applies to: Respondents who have indicated prior degrees.

NAPRD1C

Prior degree earned since high school-3
See NAPRD1A for description.

Applies to: Respondents who have indicated prior degrees.

NAPRD1D

Other degree earned since high school-4
See NAPRD1A for description.

Applies to: Respondents who have indicated prior degrees.

NABGUX

Where did you earn your bachelor's degree?

5 = IF ATTENDED NPSAS SCHOOL
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT

Applies to: Respondents enrolled in other school 2 in the NPSAS year.

NADGB

Date awarded prior BA, BA school - YYYYMM

Applies to: Respondents who have completed a prior BA degree.

NABBELG

A flag to indicate B&B eligibility at any school. Respondents are determined to be B&B eligible if they completed, or expected to complete a bachelor's degree at any time between July 1, 1999 and June 30, 2000. The values are <0> Not B&B eligible
<1> B&B eligible

Applies to: All respondents.

NAENROLL

I need to ask you some questions about the dates of your enrollment during the 1999-2000 school year. INTERVIEWER: PLEASE ENTER THE RESPONSES IN THE USER EXIT.[

Applies to: All respondents.

NATARGET

The TARGET school is the main school of focus for the interview, and is determined by the following logic:

-If the student attended only 1 school, then TARGET is the NPSAS school.
-If the student is B&B eligible, then TARGET is whichever school awards BA.
-If the student is not B&B eligible and attended more than 1 school, and is working on a degree at one school but not at the other(s), then TARGET is whichever school awards the degree.
-If the student is not B&B eligible and attended more than 1 school, and is working on a degree at both/all schools attended, then TARGET is where the student was most recently enrolled.
-If the student is not B&B eligible and attended more than 1 school, and is not working on a degree anywhere, then TARGET is the NPSAS school.

Applies to: All respondents.

NACATIST

A derived variable that indicates student type at TARGET school.
Once the TARGET school has been identified, students are classified as
<1> Undergraduate
<2> Graduate
<3> First-professional
based on the degree they were working on at the TARGET school.

Applies to: All respondents.

NAUGYR

[if NASCHCNT gt <1>]

Now, I'd like you to focus on your undergraduate enrollment at [NATARGET] during the 99-2000 school year.

What was your year or level during your last term at [NATARGET] in the 99-2000 school year?

0 =UNCLASSIFIED UNDERGRADUATE
1 =FIRST YEAR/FRESHMAN
2 =SECOND YEAR/SOPHOMORE
3 =THIRD YEAR/JUNIOR
4 =FOURTH YEAR/SENIOR
5 =FIFTH YEAR OR HIGHER UNDERGRADUATE
6 =GRADUATE STUDENT TAKING UNDERGRADUATE COURSES

Applies to: All undergraduate respondents.

NAGRDTYP

[if NASCHCNT gt <1>]

I'd like you to focus on your enrollment at [NATARGET] during the 99-2000 school year.

What specific degree were you working toward in your last term in the 99-2000 school year?

What specific degree were you working toward in your last term

at [NATARGET] in the 99-2000 school year?

MASTER'S

1 = BUSINESS ADMIN (MBA)
2 = SCIENCE (MS)
3 = ARTS (MA)
4 = EDUCATION (M.ED)
5 = PUBLIC ADMIN (MPA)
6 = LIBRARY SCIENCE(MLS)
7 = PUBLIC HEALTH (MPH)
8 = FINE ARTS (MFA)
9 = APPLIED ARTS (MAA)
10= TEACHING (MAT)
11= DIVINITY (M.DIV)
12= SOCIAL WORK (MSW)
13= LANDSCAPE ARCHITECT
14= PROFESSIONAL MGMT
15= OTHER MASTERS

DOCTOR

16= PHILOSOPHY (PHD)
17= EDUCATION (ED.D)
18 = THEOLOGY (THD)
19 = BUSINESS ADMIN (DBA)
20 = ENGINEERING (D.ENG)
21 = FINE ARTS (DFA)
22 = PUBLIC ADMIN (DPA)
23 = SCIENCE (DSC/SCD)
24 = PSYCHOLOGY (PSYD)
25 = OTHER DOCTORAL DEGREE

FIRST-PROFESSIONAL

26 = CHIROPRACTIC (DC OR DCM)
27 = DENTISTRY (DDS OR DMD)
28 = MEDICINE (MD)
29 = OPTOMETRY (OD)
30 = OSTEOPATHIC MEDICINE (DO)
31 = PHARMACY (PHARM.D)
32 = PODIATRY (DPM OR POD. D)
33 = VETERINARY MEDICINE (DVM)
34 = LAW (LLB OR JD)
35 = THEOLOGY (M.DIV, MHL, BD)

Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NAGRYR

What year of your graduate program were you in during your last term at [NATARGET] in the 99-2000 school year?

1 = FIRST YEAR
2 = SECOND YEAR
3 = THIRD YEAR
4 = FOURTH YEAR OR HIGHER

Applies to: Graduate/first-professional students who are working on a degree or baccalaureate certificate.

NAGRLEV

Are you...

1 = Still taking classes, or
2 = Working on your dissertation, or
3 = Doing an internship/residency/practicum?

Applies to: Doctoral students who are currently in their third year or higher.

NAGR

Date began graduate studies - YYYYMM

Applies to: Graduate/first-professional students who are working on a degree or postbaccalaureate certificate.

NAGRST

Since you started working on your graduate degree, have you been enrolled mainly as a full-time student or part-time student?

1 = MOSTLY FULL-TIME
2 = MOSTLY PART-TIME
3 = MIX OF FULL- AND PART-TIME

Applies to: Graduate/first-professional students in at least their second year of graduate study who are working on a degree or postbaccalaureate certificate.

NACLSTRT

Did most of your \
[if NABBELG eq <1>]
undergraduate classes at[NATARGET]
start before 4 PM, between 4 and 6 PM, or after 6 PM?

1 = BEFORE 4 PM
2 = BETWEEN 4 AND 6 PM
3 = AFTER 6 PM

Applies to: All respondents.

NAMJCOD

Major-code

Applies to: All respondents working on a degree.

NAGPA

What was your cumulative GPA at [NATARGET] through the end of your last term \ [if NABBELG eq <1>] as an undergraduate in the 99-2000 school year?

F5 = PASS/FAIL
F6 = NO GRADES AWARDEDCHOOSE F3 TO ESTIMATE GPA RANGE : 0.00-5.00

Applies to: All respondents.

NAGPAEST

Would you say that your GPA was mostly A's, A's and B's, mostly B's.?

1 = MOSTLY A'S (3.75 AND ABOVE)
2 = A'S AND B'S (3.25-3.74)
3 = MOSTLY B'S (2.75-3.24)
4 = B'S AND C'S (2.25-2.74)
5 = MOSTLY C'S (1.75-2.24)
6 = C'S AND D'S (1.25-1.74)
7 =MOSTLY D'S OR BELOW (BELOW 1.24)

Applies to: Respondents who do not know GPA.

NAMAJGPA

What was your GPA in your major through the end of your
last term in the 99-2000 school year?

F5 =PASS/FAIL
F6 =NO GRADES AWARDED
CHOOSE F3 TO ESTIMATE GPA
RANGE : 0.00-5.00

Applies to: All B&B eligible respondents.

NAMAJEST

Would you say that your GPA in your major was mostly A's, A's and B's, mostly B's.?

1 = MOSTLY A'S (3.75 AND ABOVE)
2 = A'S AND B'S (3.25-3.74)
3 = MOSTLY B'S (2.75-3.24)
4 = B'S AND C'S (2.25-2.74)
5 = MOSTLY C'S (1.75-2.24)
6 = C'S AND D'S (1.25-1.74)
7 =MOSTLY D'S OR BELOW (BELOW 1.24)

Applies to: B&B eligible respondents who do not know major GPA.

Section B: Student Background

NBGENDR

DON'T ASK IF GENDER IS OBVIOUS TO YOU.
What is your gender?
1 = MALE
2 = FEMALE
Applies to: All respondents.

NBMARR

Are you currently...
IF RESPONSE IS "SINGLE," PROBE TO DETERMINE
IF RESPONDENT WAS EVER MARRIED.
1 = Single, never married
2 = Married
3 = Separated
4 = Divorced
5 = Widowed
Applies to: All respondents.

NBMAR

Date of marriage/divorce/separation/widowing
Applies to: Respondents who are or have been married.

NBSTATE

STATE THAT ISSUED DRIVER'S LICENSE: [YDLICST]
What is your state of legal residence ?
Applies to: All respondents.

NBUSBORN

Were you born in the United States?
1 = YES
2 = NO
Applies to: All respondents.

NBCTRY

In what country were you born?
1 = BRAZIL
2 = CANADA
3 = CHINA
4 = COLUMBIA
5 = FRANCE
6 = GERMANY
7 = HONG KONG
8 = INDIA
9 = INDONESIA
10 = JAPAN
11 = KENYA, WALES, NORTHERN IRELAND)
12 = KOREA
13 = MALAYSIA
14 = MEXICO
15 = PAKISTAN
16 = RUSSIA
17 = SAUDI ARABIA
18 = SWEDEN
19 = SPAIN
20 = TAIWAN
21 = THAILAND
22 = TURKEY
23 = UK (ENGLAND, SCOTLAND)
24 = VENEZUELA
25 = OTHER
Applies to: Foreign-born respondents.

NBYRIMM

In what year did you enter the United States?
YEAR (1930-2000)
Applies to: Foreign-born respondents.

NBCITZN

Are you a U. S. citizen?
1 =YES -US CITIZENOR US NATIONAL
2 =NO-RESIDENT ALIEN- PERMANENT RESIDENT OR OTHER ELIGIBLE NON-CITIZEN TEMPORARY RESIDENT'S CARD
3 =NO-STUDENT VISA- IN THE COUNTRY ON AN F1ORF2VISA OR ON AJ1OR J2EXCHANGE VISITOR VISA
Applies to: All respondents.

NBHISP

Are you of Hispanic or Latino origin?
1 = YES
2 = NO
Applies to: All respondents.

NBHISTYP

Are you of...
1 =Mexican, Mexican-American, or Chicano descent?
2 =Cuban descent?
3 =Puerto Rican descent?
4 =Some other Hispanic origin?
Applies to: Respondents of Hispanic or Latino origin.

Section B: Student Background

NBRAC1

What is your race?
BE SURE TO RECORD FIRST RESPONSE FIRST
ENTER 0 WHEN DONE
1 =WHITE
2 =BLACK OR AFRICAN AMERICAN
3 =ASIAN
4 =AMERICAN INDIAN OR ALASKA NATIVE
5 =NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
6 =OTHER, SPECIFY
Applies to: All respondents.

NBRAC2

Race-2
See NBRAC1 for description.
Applies to: Respondents who report more than one race.

NBRAC3

Race-3
Applies to: Respondents who report more than one race.
See NBRAC1 for description.

NBASIAN

Are you...
1 = Chinese
2 = Korean
3 = Filipino
4 = Japanese
5 = Vietnamese
6 = Asian Indian
7 = Thai
8 = Native Hawaiian
9 = Samoan
10 = Guamanian or Chamorro
11 = Or some other Asian or Pacific Islander?
Applies to: Asian respondents.

NBTRIBE

Are you enrolled in a state- or federally-recognized tribe?
1 = YES
2 = NO
Applies to: American Indian or Alaska native respondents.

NBRACE

For historical purposes, could you please identify which single race best describes you?
1 =WHITE
2 =BLACK OR AFRICAN AMERICAN
3 =ASIAN
4 =AMERICAN INDIAN OR ALASKA NATIVE
5 =NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
6 =OTHER, SPECIFY
Applies to: Respondents who report more than one race.

NBLANG

What language was spoken most often at home as you were growing up?
1 = ENGLISH
2 = SPANISH, CATALAN, GALICIAN, BASQUE
3 = ARABIC
4 = BAHASA
5 = CHINESE, CANTONESE, MANDARIN
6 = FARCEY (PHARSI)
7 = FRENCH AND CANADIAN FRENCH
8 = GAELIC
9 = GERMAN
10 = HEBREW
11 = HINDI, MALAY, TAMIL
12 = JAPANESE
13 = KOREA
14 = MALAYSIAN (BAHASA MALAY)
15 = URDU, PUNJABI, SINDHI
16 = TGALOG
17 = THAI
18 = VIETNAMESE
19 = WELSH
20 = AMERICAN SIGN LANGUAGE OR OTHER SIGN LANGUAGE
21 = BENGALI
22 = DUTCH
23 = KURDISH
24 = PORTUGESE
25 = RUSSIAN
26 = SWAHILI
27 = SWEDISH
28 = TURKISH
29 = OTHER
Applies to: All respondents.

NBDIPL

Did you...
1 =Receive a high school diploma,
2 =Pass a GED (General Educational Development) test, or
3 =Receive a high school completion certificate
4 =ATTENDED FOREIGN HIGH SCHOOL
5 =DID NOT COMPLETE HIGH SCHOOL OR HIGH SCHOOL EQUIVALENCY PROGRAM
6 =HOME SCHOOLING
Applies to: Respondents with no preloaded indication of high school diploma.

Section B: Student Background

NBHSYR
[if NBDIPL eq <6>]
When did you complete high school?
[else][if NBDIPL eq <4>]
When did you graduate (last attend) high school?
[else]
When did you receive your high school \
[if NBDIPL eq <1> or YHSSTAT eq <1>]
diploma?
[else]
certificate?
YEAR RANGE: (1930-2000)
Applies to: All respondents except those who did not complete high school or high school equivalency program.

NBHSCMP
Were you completing high school requirements for the entire time you were enrolled at [NATARGET] between July 1, 1999 and June 30, 2000?
1 = YES
2 = NO
Applies to: Respondents who completed HS in the current year, or who haven't completed high school.

NBHSTYP
Was your high school public or private?
1 = PUBLIC
2 = PRIVATE
3 = ATTENDED FOREIGN SCHOOL
Applies to: Respondents who received a high school diploma.

NBHSPRV
Was your high school a Catholic school, other religious, or some other type of private school?
1 = CATHOLIC
2 = OTHER RELIGIOUS
3 = NO RELIGIOUS AFFILIATION
Applies to: Respondents who attended private high school.

NBNP
Date first attended NPSAS school
Applies to: All respondents.

NBS1
What was the first school you attended after high school?
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT
Applies to: Respondents whose first postsecondary institution was other than the NPSAS school.

NBS1
Date first attended first PSE
Applies to: Respondents who attended another institution prior to NPSAS.

NBTRNS
Based on what you've told me so far, you attended another school, prior to [YNPSCHL].
Did you transfer any credits to [YNPSCHL]?
1 = YES
2 = NO
Applies to: Respondents who attended another institution prior to NPSAS.

NBEVRCC
Have you ever taken classes at a community college?
1 = YES
2 = NO
Applies to: All respondents.

NBEVR4YR
Have you ever attended a 4-year school?
1 = YES
2 = NO
Applies to: All respondents.

NBDEPS
My next few questions are about your family.
When you were enrolled in the 1999-2000 school year,
did you have any children that you
[if NBMARR eq <2>]
and your spouse
[if NBMARR eq <2>]
supported financially?
1 = YES
2 = NO
Applies to: All respondents.

NBDAGE1
How many of your children are...
Under 5?(0-9)...(nbdage1)
Aged 5 to 12?(0-9)...(nbdage2)
Aged 13 to 16? (0-9)...(nbdage3)
Over 16?(0-9)...(nbdage4)
Applies to: Respondents with dependent children.

NBDAGE2
Number of dependents age 5-12
See NBDAGE1for description.
Applies to: Respondents with dependent children.

NBDAGE3
Number of dependents 13-16
See NBDAGE1 for description.
Applies to: Respondents with dependent children.

NBDAGE4
Number of dependents over 16
See NBDAGE1 for description.
Applies to: Respondents with dependent children.

NBDAYCR
While you're at school, who (primarily)
takes care of your child/children?
1 = CHILD'S OTHER PARENT
2 = OTHER RELATIVE/FAMILY MEMBER
3 = FRIEND/NEIGHBOR/BABYSITTER NANNY
4 = CAMPUS/DAYCARE/CENTER
5 = DAYCARE CENTER
6 = CHILD(REN) IN SCHOOL WHILE RESPONDENT IS ATTENDING CLASSES
7 = OTHER
Applies to: Respondents with dependent children under age 12.

NBDAYCST
On average, how much did you pay each month
for childcare during the last term you were
enrolled in the 99-2000 school year?
RANGE ($0 - $[1000*NUMBER DEPENDENT CHILDREN UNDER 12]):
Applies to: Respondents with dependent children under age 12.

NBCOLL
When you were last enrolled during the 99-00 school year,
how many of your children were in college?
RANGE:(0-[NBDAGE4])
Applies to: Respondents with dependent children aged 16 and over.

NBOTDPS
[if NBMARR eq <2>]
Other than your spouse, were \
[else]
Were \
[endif]
you supporting anyone else during the last term
you were enrolled in the 99-00 school year?
1 = YES
2 = NO
Applies to: All respondents.

NBOTDP1
Who else did you support?
ENTER 0 FOR NO MORE
1 = PARENTS
2 = GRANDPARENTS
3 = OTHER RELATIVE
4 = OTHER
Applies to: Respondents with other dependents.

NBOTDP2
Other dependents-2
See NBOTDP1 for description.
Applies to: Respondents with other dependents.

NBOTDP3
Other dependents-3
See NBOTDP1 for description.
Applies to: Respondents with other dependents.

NBSPCOL
Did your spouse attend college or graduate school
during the 99-00 school year?
1 = YES
2 = NO
Applies to: Married respondents.

Section B: Student Background

NBSPAID

Did [if NBGENDR eq <2> he/[else]she receive financial aid for \
[if NBGENDR eq <2>]his \[else]her \
education?
1 = YES
2 = NO
Applies to: Married respondents whose spouse attended college during the 99-00 school year.

NBMILIT

Are you a veteran of the US Armed Forces, or are you currently serving in the Armed Forces, either on active duty or in the reserves?
0 = NO
1 = VETERAN
3 = ACTIVE DUTY
4 = RESERVES
Applies to: Respondents who are US citizens.

NBVOTE

Are you registered to vote in US elections?
1 = YES
2 = NO
Applies to: Respondents who are US citizens.

NBEVRVT

Have you ever voted in any national, state, or local election?
1 = YES
2 = NO
Applies to: Respondents who are US citizens.

NBVTPRS

[If before 11/7/2000]
Do you plan to vote in the upcoming presidential election?
[Else]
Did you vote in the recent presidential election?
1 = YES
2 = NO
Applies to: Respondents who are US citizens, excluding residents of Puerto Rico.

NBPOLIT

In the last two years, did you...Go to any political meetings, rallies, or dinners, or participate in other political activities? Please do not include campus elections.
1 = YES
2 = NO
Did you write letters or send e-mail to any public official to express your opinion?
1 = YES
2 = NO
Applies to: All respondents who are US citizens.

NBPOLTR

Write opinion letter
See NBPOLITfor description.
Applies to: All respondents who are US citizens.

NBPARST

Next I'd like to ask you some questions about your parents...
Are your parents...
1 =Married to each other?
2 =Divorced?
3 =Separated?
4 =Never married to each other?
5 =Or is one or both of your parents deceased?
6 =NEVER KNEW PARENTS AND NO GUARDIANS
7 =NEVER KNEW PARENTS AND HAD GUARDIANS
Applies to: Respondents under age 30.

NBDCSD

Which of your parents is deceased?
1 = MOTHER
2 = FATHER
3 = BOTH
Applies to: Respondents under 30 whose parent(s) is/are deceased.

NBGUARD

[if NBPARST ne <5> and NBPARST ne <7>]
Do you have any legal guardians other than your parents?
[else]
Do you have any legal guardians?
[endif]
1 = YES
2 = NO
Applies to: Respondents under age 30 with parents/guardians.

NBGRDTYP

PROBE TO DETERMINE IF THE GUARDIAN IS MALE/FEMALE
1 =MALE GUARDIAN
2 =FEMALE GUARDIAN
3 =BOTH MALE AND FEMALE GUARDIANS
Applies to: Respondents under age 30 with guardians.

NBCARE

Do you consider your parents or your guardians to have been your primary caretakers growing up?
0 = NEITHER
1 = PARENT(S)
2 = GUARDIAN(S)
Applies to: Respondents under age 30 with guardians.

NBPRST1

What is your \
[if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
guardians'\
[else][if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian's\
[else][if (NBCARE eq <> or NBCARE eq <1>) and NBDCSD eq <> and NBPARST ne <1>) or (NBDCSD eq <1> and (NBCARE eq <> or NBCARE eq <1>))]
father's \ parents' state of legal residence?
Applies to: Respondents under 30 whose parents/guardians are married to each other, and respondents under 30 who only have a father/male guardian.

NBPRST2

What is your \
[if NBGRDTYP eq <2> and (NBCARE eq <2> or NBCARE eq <>)]
guardian's\ mother's\
state of legal residence?
Applies to: Respondents under 30 whose parents/guardians are not married to each other and respondents under 30 who only have a mother/female guardian.

NBUSDAD

[if AGE ge <30>]
Next I'd like to ask you some questions about your parents...
[endif]
Was your \
[if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian\
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)] male guardian\
[else]father born in the United States?
1 =YES
2 =NO
3 =NEVER KNEW FATHER AND NO GUARDIAN
Applies to: Respondents who have a father/male guardian.

NBCTRYD

In what country was your \
[if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
male guardian \[else]father born?
1 = BRAZIL
2 = CANADA
3 = CHINA
4 = COLUMBIA
5 = FRANCE
6 = GERMANY
7 = HONG KONG
8 = INDIA
9 = INDONESIA
10 = JAPAN
11 = KENYA, WALES, NORTHERN IRELAND)
12 = KOREA
13 =MALAYSIA
14 = MEXICO
15 = PAKISTAN
16 = RUSSIA
17 = SAUDI ARABIA
18 = SWEDEN
19 = SPAIN
20 = TAIWAN
21 = THAILAND
22 = TURKEY
23 = UK (ENGLAND, SCOTLAND)
24 = VENEZUELA
25 = OTHER
Applies to: Respondents with foreign-born father/male guardian.

NBARRVF

When did your \
[if NBGRDTYP eq <1> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian [else][if NBGRDTYP eq <3> and
(NBCARE eq
<2> or NBCARE eq <>)]
male guardian
[else]
father arrive in the United States?
RANGE:(1910-2000)
F5 = NOT LIVING IN UNITED STATES
Applies to: Respondents with foreign-born father/male guardian.

NBUSMOM

[if AGE ge <30> and NBUSDAD eq <>]
Next I'd like to ask you some questions
about your parents...
Was your \
[if NBGRDTYP eq <2> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian\
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)]
female guardian \ mother born in the United States?
1 =YES
2 =NO
3 =NEVER KNEW MOTHER AND NO GUARDIAN
Applies to: Respondents who have a mother/female guardian.

NBCTRYM

In what country was your \
[if NBGRDTYP eq <2> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)]
female guardian \
[else]
mother born?
1 = BRAZIL
2 = CANADA
3 = CHINA
4 = COLUMBIA
5 = FRANCE
6 = GERMANY
7 = HONG KONG
8 = INDIA
9 = INDONESIA
10 = JAPAN
11 = KENYA, WALES, NORTHERN IRELAND)
12 = KOREA
13 =MALAYSIA
14 = MEXICO
15 = PAKISTAN
16 = RUSSIA
17 = SAUDI ARABIA
18 = SWEDEN
19 = SPAIN
20 = TAIWAN
21 = THAILAND
22 = TURKEY
23 = UK (ENGLAND, SCOTLAND)
24 = VENEZUELA
25 = OTHER
Applies to: Respondents with foreign-born mother/female guardian.

NBARRVM

When did your \
[if NBGRDTYP eq <2> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)]
female guardian
[else]
mother arrive in the United States?
RANGE:(1910-2000)
F5 = NOT LIVING IN UNITED STATES
Applies to: Respondents with foreign-born mother/female guardian.

NBDADGE
How old is your \
[if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
male guardian \
[else]
father?
RANGE:(30-110)
F5 = DECEASED
Applies to: Respondents under age 30 with missing/invalid preloaded values for age of older parent.

NBMAGE
How old is your \
[if NBGRDTYP eq <2> and (NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
female guardian \
[else]
mother?
RANGE:(30-110)
F5 = DECEASED
Applies to: Respondents under age 30 with missing/invalid preloaded values for age of older parent.

NBPRHSD
Not including yourself or parents, how many people
[if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
did your guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
did your guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>) and NBGUARD eq <2>]
did your parent \
[else]
did your parents support financially during the 99-00 school year?
RANGE:(0-15)
Applies to: Respondents under age 30 with parents/guardians.

NBDPCOL
[if NBPRHSD eq <1>]
Was that person \
Were any of those people in college during the 99-00 school year?
1 = YES
2 = NO
Applies to: Respondents under age 30 whose parents/guardians had dependents during 99-00 school year.

NBSIBCOL
How many of your brothers and sisters, if you have any, ever attended college?
NOTE:0 MEANS NO SIBLINGS IN COLLEGE
55 MEANS R HAS SIBLINGS BUT TOO YOUNG TO ATTEND COLLEGE
99 MEANS NO SIBLINGS INTERVIEWER:IF 0, PROBE TO FIND OUT IF R HAS SIBLINGS AT ALL RANGE:(0-15)
Applies to: Respondents under age 30 who had college-age siblings during 99-00 school year.

NBPRCOL

[if NBCARE eq <0> or (NBCARE eq <1> and NBPARST
lt <5>) or
(NBCARE eq <> and NBPARST lt <5>)]
Were either of your parents \
[else][if NBCARE eq <2> and NBGRDTYP eq <3> or
(NBCARE eq <> and NBGRDTYP eq <3>)]
Were either of your guardians \
[else][if (NBCARE eq <1> or NBCARE eq <>) and NBDCSD eq <2>]
Was your mother \
[else][if (NBCARE eq <2> and NBGRDTYP eq <2>) or
(NBCARE eq <> and NBPARST eq <7>
and NBGRDTYP eq <2>)]
Was your female guardian \
[else][if (NBCARE eq <1> or NBCARE eq <>) and NBDCSD eq <1>]
Was your father \
[else][if (NBCARE eq <2> and NBGRDTYP eq <1>)
or (NBCARE eq <> and NBPARST eq <7>
and NBGRDTYP eq <1>)]
Was your male guardian \
[else]
Was/were your parent(s)/guardian(s) taking any college courses during the 99-00 school year?
1 = YES
2 = NO
Applies to: Respondents under age 30 with parents/guardians.

NBDADED

What was the highest level of education your
[if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian\
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
male guardian\
[else]father ever completed?
1 =DID NOT COMPLETE HIGH SCHOOL
2 =HIGH SCHOOL DIPLOMA OR EQUIVALENT
3 =VOCATIONAL/TECHNICAL TRAINING
4 =LESS THAN 2 YEARS OF COLLEGE
5 =TWO OR MORE YEARS OF COLLEGE/ASSOCIATE'S DEGREE
6 =BACHELOR'S DEGREE
7 =MASTER'S DEGREE OR EQUIVALENT
8 =MD, LLB, JD OR OTHER ADVANCED DEGREE
9 =PHD OR EQUIVALENT
Applies to: All respondents, excluding those who only have a female guardian as their primary caregiver.

NBDADAS

Did your \
[if NBGRDTYP eq <1> and (NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
male guardian \
[else]
father earn an associate's degree?
1 = YES
2 = NO
Applies to: Respondents whose father/male guardian completed two or more years of college or an associate's degree.

NBDADCD

What is your fathers current occupation?
1= Enter user-exit
2= Skip over user-exit
3= RETIRED
4= Homemaker
5= NOT EMPLOYED (including Disabled)
Applies to: Respondents under 30 with a father/male guardian.

NBMOMED
What was the highest level of education your
[if NBGRDTYP eq <2> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian\
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)]
female guardian\
[else]
mother ever completed?
1 =DID NOT COMPLETE HIGH SCHOOL
2 =HIGH SCHOOL DIPLOMA OR EQUIVALENT
3 =VOCATIONAL/TECHNICAL TRAINING
4 =LESS THAN 2 YEARS OF COLLEGE
5 =TWO OR MORE YEARS OF COLLEGE/ASSOCIATE'S DEGREE
6 =BACHELOR'S DEGREE
7 =MASTER'S DEGREE OR EQUIVALENT
8 =MD, LLB, JD OR OTHER ADVANCED DEGREE
9 =PHD OR EQUIVALENT
Applies to: All respondents, excluding those who only have a male guardian as their primary caregiver.

NBMOMAS
Did your \
[if NBGRDTYP eq <2> and (NBCARE eq <2>
or NBCARE eq <>)]
guardian \
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)]
female guardian \
[else]
mother earn an associate's degree?
1 = YES
2 = NO
Applies to: Respondents whose mother/female guardian completed two or more years of college or an associate's degree.

NBMOMCD
What is your mothers current occupation?
1= Enter user –exit
2= Skip over user-exit
3= RETIRED
4= Homemaker
5= NOT EMPLOYED (including Disabled)
Applies to: Respondents under 30 with a mother/female guardian.

NCRCVAID
Next I'd like to ask you some questions about how you've paid for your education.
Did you receive financial aid - such as \
[if NACATIST eq <1>]
grants, loans, scholarships or work study
[else]
grants, loans, scholarships, assistantships, fellowships,
or traineeships
[endif]
to attend any schools during the99-2000school year?
1 = YES
2 = NO
Applies to: All respondents.

NCAPPAID
Did you apply for financial aid for 99-2000 ?
1 = YES
2 = NO
Applies to: All respondents except those who declined to answer the previous question regarding financial aid.

NCTASST
[if YAID eq <1> or YAPPAID eq <1>]
Next I'd like to ask you some questions about how you've paid for your education.
[endif]
ENTER 1 = YES, 2 = NO AND AMOUNT
For the99-2000school year, did you have...

A teaching assistantship?	(nctasst)$	(nctassm)
A research assistantship?	(ncrasst)$	(ncrassm)
A graduate fellowship?	(ncgfel)$	(ncgfelm)
A traineeship?	(nctrnshp)$	(nctrnsm)
Any other kind of graduate assistantship?	(ncgasst)$	(ncgassm)

Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCTASSM
Teaching assistantship amount
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.
See NCTASST for description.

NCRASST
Research assistantship
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCRASSM
Research assistantship amount
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCGFEL
Graduate fellowship
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCGFELM
Fellowship amount
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCTRNSHP
Traineeship
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCTRNSM
Traineeship amount
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCGASST
Graduate assistantship
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCGASSM

Other graduate assistantship amount
See NCTASST for description.
Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

NCTUIREM

Did you receive reduced (in-state) tuition or a tuition waiver, or any type of tuition discount?
1 = YES
2 = NO
Applies to: Graduate/first-professional students with an assistantship or fellowship.

NCBENEF

As part of your assistantship, do you receive any benefits from[NATARGET]
such as health insurance or life insurance?
1 = YES
2 = NO
Applies to: Graduate/first-professional students with an assistantship or fellowship.

NCOTADN

Did you receive any financial aid during the 99-2000school year that did not come from the financial aid office at[YNPSCHL] ,
such as tuition paid by your employer, private loans
or scholarships, or veteran's benefits?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: All respondents.

NCADNEMP

Did you receive...
ENTER 1 = YES 2 = NO AMOUNT RECEIVED

Employer Assistance?	(ncadnemp)
Range ($1-$100,000)	(ncamnemp)
A personal loan from a bank or private organization?	(ncadncom)
Range ($1-$150,000)	(ncamncom)
Veteran's benefits?	(ncadnvet)
Range ($1-$25,000)	(ncamnvet)
[if NBCITZN eq <2> or NBCITZN eq <3>]	
Aid from a foreign government?	(ncadnfor)
Range ($1-$150,000)	(ncamnfor)
Grants/Scholarships from a private organization?	(ncadnprv)
Range ($1-$30,000)	(ncamnprv)
Aid from some other source (excluding family and friends)?	(ncadnoth)
Range ($1-$75,000)	(ncamnoth)

Applies to: Respondents who received other financial aid during 99-2000 school year.

NCAMNEMP

See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCADNCOM

See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCAMNCOM

See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCADNVET

See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCAMNVET

See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCADNFOR
See NCADNEMP for description.
Applies to: Non U.S. citizens who received other financial aid during 99-2000 school year.

NCAMNFOR
See NCADNEMP for description.
Applies to: Respondents who received other financial aid during 99-2000 school year.

NCADNPRV
See NCADNEMP for description.
Applies to: Respondents who received other financial aid during99-2000 school year.

NCAMNPRV
See NCADNEMP for description.
Applies to: Respondents who received other financial aid during99-2000 school year.

NCADNOTH
See NCADNEMP for description.
Applies to: Respondents who received other financial aid during99-2000 school year.

NCAMNOTH
See NCADNEMP for description.
Applies to: Respondents who received other financial aid during99-2000 school year.

NCFAMN99
How much did you borrow from family and friends to attend[YNPSCHL]
for the 99-2000 school year?
RANGE: ($0 - $100,000)
Applies to: All respondents.

NCGRTCT
During the 1999-2000 school year, did you receive any grants or scholarships to attend[NATARGET] ?
1 = YES
2 = NO
Applies to: Respondents whose TARGET school is not the NPSAS school.

NCPELLT
Did you receive a Pell grant to attend [NATARGET] ?
1 = YES
2 = NO
Applies to: Undergraduate respondents whose TARGET school is not the NPSAS school.

NCSRCT1
What \ [if NCPELLT eq <1>]other \grants or scholarships did you receive to attend[NATARGET] ?
Please exclude any aid that was not administered through the financial aid office.
ENTER 0 FOR NONE OR NO MORE
Name of Grant/Scholarship Source Amount
(I/S/O) ($0-50,000)
ncotht1 ncsrct1 ncamtt1
ncotht2 ncsrct2 ncamtt2
ncotht3 ncsrct3 ncamtt3
ncotht4 ncsrct4 ncamtt4
ncotht5 ncsrct5 ncamtt5
ncotht6 ncsrct6 ncamtt6
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT1
Amount of grant/scholarship-1-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCSRCT2
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT2
Amount of grant/scholarship-2-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCSRCT3
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT3
Amount of grant/scholarship-3-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCSRCT4
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT4
Amount of grant/scholarship-4-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCSRCT5
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT5
Amount of grant/scholarship-5-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCSRCT6
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCAMTT6
Amount of grant/scholarship-6-TARGET
See NCSRCT1 for description.
Applies to: Respondents who received a grant/scholarship from TARGET school.

NCFEDLT
Did you receive any federal student loans to attend[NATARGET]
during the 99-2000 school year?
1 = YES
2 = NO
Applies to: Respondents whose TARGET school is not the NPSAS school.

NCOTADT
Did you receive any financial aid during the99-2000 school year that did not come from the financial aid office at[NATARGET] ?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: Respondents whose TARGET school is not the NPSAS school.

NCADTEMP
Did you receive...
ENTER 1 = YES 2 = NO AMOUNT RECEIVED

Employer Assistance?	(ncadtemp)
Range ($1-$100,000)	(ncamtemp)
A personal loan from a bank or private organization?	(ncadtcom)
Range ($1-$150,000)	(ncamtcom)
Veteran's benefits?	(ncadtvet)
Range ($1-$25,000)	(ncamtvet)
[if NBCITZN eq <2> or NBCITZN eq <3>]	
Aid from a foreign government?	(ncadtfor)
Range ($1-$150,000)	(ncamtfor)
Grants/Scholarships from a private organization?	(ncadtprv)
Range ($1-$30,000)	(ncamtprv)
Aid from some other source (excluding family and friends)?	(ncadtoth)
Range ($1-$75,000)	(ncamtoth)

Applies to: Respondents who received other aid to attend TARGET.

NCAMTEMP
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCADTCOM
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCAMTCOM
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCADTVET
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCAMTVET
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCADTFOR
See NCADTEMP for description.
Applies to: Non U.S. citizens who received other aid for TARGET.

NCAMTFOR
See NCADTEMP for description.
Applies to: Non U.S. citizens who received other aid to attend TARGET.

NCADTPRV
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCAMTPRV
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCADTOTH
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCAMTOTH
See NCADTEMP for description.
Applies to: Respondents who received other aid to attend TARGET.

NCFAMT99
How much did you borrow from family and friends to attend[NATARGET] for the 99-2000 school year?
RANGE: ($0 - $100,000)
Applies to: Respondents whose TARGET school is not the NPSAS school.

NCGRTC1
During the 1999-2000 school year, did you receive any grants or scholarships to attend [Other School 1] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 1.

NCPELL1
Did you receive a Pell grant to attend [Other School 1] ?
1 = YES
2 = NO
Applies to: Undergraduates who attended other school 1.

NCSRC11
What \
[if NCPELL1 eq <1>]
other \
[endif]
grants or scholarships did you receive to attend[Other School 1] ?
Please exclude any aid that was not administered through the financial aid office.
ENTER 0 FOR NONE OR NO MORE
Name of Grant/ScholarshipSourceAmount
(I/S/O) ($0-50,000)
ncoth11 ncsrc11 ncamt11
ncoth12 ncsrc12 ncamt12
ncoth13 ncsrc13 ncamt13
ncoth14 ncsrc14 ncamt14
ncoth15 ncsrc15 ncamt15
ncoth16 ncsrc16 ncamt16
Applies to: Respondents who received grants/scholarships from other school 1.

NCAMT11
Amount of grant/scholarship-1-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1

NCSRC12
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

Section C: Student Expenses and Financial Aid

NCAMT12

Amount of grant/scholarship-2-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCSRC13

See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCAMT13

Amount of grant/scholarship-3-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCSRC14

See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCAMT14

Amount of grant/scholarship-4-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCSRC15

See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCAMT15

Amount of grant/scholarship-5-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCSRC16

See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCAMT16

Amount of grant/scholarship-6-TARGET
See NCSRC11 for description.
Applies to: Respondents who received grants/scholarships from other school 1.

NCFEDL1

Did you receive any federal student loans to attend[Other School 1] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 1.

NCOTAD1

Did you receive any financial aid during the 99-2000 school year that did not come from the financial aid office at [Other School 1]?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: Respondents who attended other school 1.

NCAD1EMP

Did you receive...
ENTER 1 = YES 2 = NO AMOUNT RECEIVED
Employer Assistance?................................(ncad1emp)
Range ($1-$100,000) ....(ncam1emp)
A personal loan from a bank
or private organization? ....(ncad1com)
Range ($1-$150,000) ....(ncam1com)
Veteran's benefits? ....(ncad1vet)
Range ($1-$25,000) ....(ncam1vet)
[if NBCITZN eq <2> or NBCITZN eq <3>]
Aid from a foreign government? ....(ncad1for)
Range ($1-$150,000) ....(ncam1for)
Grants/Scholarships from a private
organization? ....(ncad1prv)
Range ($1-$30,000) ....(ncam1prv)
Aid from some other source
(excluding family and friends)? ....(ncad1oth)
Range ($1-$75,000) ....(ncam1oth)
Applies to: Respondents who received other aid to attend other school 1.

NCAM1EMP

See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAD1COM
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAM1COM
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAD1VET
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAM1VET
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAD1FOR
See NCAD1EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 1.

NCAM1FOR
See NCAD1EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 1.

NCAD1PRV
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAM1PRV
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAD1OTH
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend other school 1.

NCAM1OTH
See NCAD1EMP for description.
Applies to: Respondents who received other aid to attend schools other school 1.

NCFAM199
How much did you borrow from family and friends to attend[Other School 1]for the
99-2000 school year?
RANGE: ($0 - $100,000)
Applies to: Respondents who attended other school 1.

NCGRTC2
During the 1999-2000 school year, did you receive any grants or scholarships to attend[Other School 2] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 2.

NCPELL2
Did you receive a Pell grant to attend[Other School 2] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 2.

NCSRC21
What \ [if NCPELL2 eq <1>]
other grants or scholarships did you receive to attend [Other School 2] ?
Please exclude any aid that was not administered through the financial aid office.
ENTER 0 FOR NONE OR NO MORE
Name of Grant/ScholarshipSourceAmount
(I/S/O) ($0-50,000)
ncoth21 ncsrc21 ncamt21
ncoth22 ncsrc22 ncamt22
ncoth23 ncsrc23 ncamt23
ncoth24 ncsrc24 ncamt24
ncoth25 ncsrc25 ncamt25
ncoth26 ncsrc26 ncamt26
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT21
Amount of grant/scholarship-2-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCSRC22
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT22
Amount of grant/scholarship-2-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCSRC23
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT23
Amount of grant/scholarship-3-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCSRC24
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT24
Amount of grant/scholarship-4-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCSRC25
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT25
Amount of grant/scholarship-5-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCSRC26
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCAMT26
Amount of grant/scholarship-6-TARGET
See NCSRC21 for description.
Applies to: Respondents who received grants/scholarships from other school 2.

NCFEDL2
Did you receive any federal student loans to attend[Other School 2] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 2.

NCOTAD2
Did you receive any financial aid during the 99-2000 school year that did not come from the financial aid office at[Other School 2] ?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: Respondents who attended other school 2.

NCAD2EMP
Did you receive...
ENTER 1 = YES 2 = NO AMOUNT RECEIVED
Employer Assistance? ....(ncad2emp)
Range ($1-$100,000) ....(ncam2emp)
A personal loan from a bank
or private organization? ....(ncad2com)
Range ($1-$150,000) ....(ncam2com)
Veteran's benefits? ....(ncad2vet)
Range ($1-$25,000) ....(ncam2vet)
[if NBCITZN eq <2> or NBCITZN eq <3>]
Aid from a foreign government?...............(ncad2for)
Range ($1-$150,000) ....(ncam2for)
Grants/Scholarships from a private
organization? ....(ncad2prv)
Range ($1-$30,000)(ncam2prv)
Aid from some other source
(excluding family and friends)? ....(ncad2oth)
Range ($1-$75,000) ....(ncam2oth)
Applies to: Respondents who received other aid to attend other school 2.

Section C: Student Expenses and Financial Aid

NCAM2EMP
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAD2COM
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAM2COM
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAD2VET
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAM2VET
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAD2FOR
See NCAD2EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 2.

NCAM2FOR
See NCAD2EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 2.

NCAD2PRV
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAM2PRV
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAD2OTH
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCAM2OTH
See NCAD2EMP for description.
Applies to: Respondents who received other aid to attend other school 2.

NCFAM299
How much did you borrow from family and
friends to attend[Other School 2(<3>)]
for the 99-2000 school year?
RANGE: ($0 - $100,000)
Applies to: Respondents who attended other school 2.

NCGRTC3
During the 1999-2000 school year, did you
receive any grants or scholarshipsto
attend[Other School 3] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 3.

NCPELL3
Did you receive a Pell grant to attend
[Other School 3] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 3.

NCSRC31
What \
[if NCPELL3 eq <1>]other grants or scholarships did
you receive to attend[Other School 3] ?
Please exclude any aid that was not administered
through the financial aid office.
ENTER 0 FOR NONE OR NO MORE
Name of Grant/ScholarshipSourceAmount
(I/S/O) ($0-50,000)
ncoth31 ncsrc31 ncamt31
ncoth32 ncsrc32 ncamt32
ncoth33 ncsrc33 ncamt33
ncoth34 ncsrc34 ncamt34
ncoth35 ncsrc35 ncamt35
ncoth36 ncsrc36 ncamt36
Applies to: Respondents who received grants/scholarships from other school 3.

Section C: Student Expenses and Financial Aid

NCAMT31
Amount of grant/scholarship-3-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCSRC32
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCAMT32
Amount of grant/scholarship-3-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCSRC33
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCAMT33
Amount of grant/scholarship-3-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCSRC34
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCAMT34
Amount of grant/scholarship-4-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCSRC35
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCAMT35
Amount of grant/scholarship-5-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCSRC36
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCAMT36
Amount of grant/scholarship-6-TARGET
See NCOTH31 for description.
Applies to: Respondents who received grants/scholarships from other school 3.

NCFEDL3
Did you receive any federal student loans to attend[Other School 3] ?
1 = YES
2 = NO
Applies to: Respondents who attended other school 3.

NCOTAD3
Did you receive any financial aid during the 99-2000 school year that did not come from the financial aid office at[Other School 3] ?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: Respondents who attended other school 3.

Section C: Student Expenses and Financial Aid

NCAD3EMP

Did you receive...
ENTER 1 = YES 2 = NO AMOUNT RECEIVED
Employer Assistance?................................(ncad3emp)
Range ($1-$100,000).................................(ncam3emp)
A personal loan from a bank or private organization?............................(ncad3com)
Range ($1-$150,000).................................(ncam3com)
Veteran's benefits?.....................................(ncad3vet)
Range ($1-$25,000)...................................(ncam3vet)
[if NBCITZN eq <2> or NBCITZN eq <3>]
Aid from a foreign government?................(ncad3for)
Range ($1-$150,000)..................................(ncam3for)
Grants/Scholarships from a private organization?...(ncad3 prv)
Range ($1-$30,000)...................................(ncam3prv)
Aid from some other source (excluding family and friends)?.................(ncad3oth)
Range ($1-$75,000)...................................(ncam3oth)

Applies to: Respondents who received other aid to attend other school 3.

NCAM3EMP

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAD3COM

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAM3COM

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAD3VET

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAM3VET

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAD3FOR

See NCAD3EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 3.

NCAM3FOR

See NCAD3EMP for description.
Applies to: Non U.S. citizens who received other aid to attend other school 3.

NCAD3PRV

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAM3PRV

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAD3OTH

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCAM3OTH

See NCAD3EMP for description.
Applies to: Respondents who received other aid to attend other school 3.

NCFAM399

How much did you borrow from family and friends to attend[Other School 3] for the 99-2000 school year?
RANGE: ($0 - $100,000)
Applies to: Respondents who attended other school 3.

NCUGLN
The next questions are about how you paid for your education after graduating from high school. Other than any money you may have borrowed from family or friends , how much \
[if NACATIST eq <1>] ,
have you already borrowed in student loans for your undergraduate education?
[else]
did you borrow in student loans for your undergraduate education?
[endif]
AMOUNT (RANGE: $0 - $150,000):
Applies to: All respondents.

NCFEDGL
How much of \
if NCUGLN gt <0>]
the $[NCUGLN] \
[else]
that amount is infederal student loans?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Respondents with undergraduate loans.

NCFEDGO
How much of \
[if NCFEDGL gt <0>]
the $[NCFEDGL]
[else]
that amount do you still owe?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Respondents with Federal undergraduate loans.

NCGRLN
Other than any money you may have borrowed from family or friends, how much have you already borrowed in student loans for your graduate education?
AMOUNT (RANGE: $0 - $150,000):
Applies to: Graduate/first-professional students.

NCFEDRL
How much of \
[if NCGRLN gt <0>]
the $[NCGRLN] \
[else]
that amount is in federal student loans?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - 150,000):
Applies to: Graduate/first-professional students with graduate loans.

NCFEDRO
How much of \
[if NCFEDRL gt <0>]
the $[NCFEDRL]
[else]
that amount do you still owe?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Graduate/first-professional students with graduate loans.

NCFAMLN
[if NCFAMN99 gt <0>]
Including the $[NCFAMN99] you borrowed
from family and friends for the 99-2000 school year,
how much
money have you borrowed from family and friends to pay for
your education since high school ?
[else]
How much money have you borrowed from family and friends to pay for your education since high school ?
[endif]
[if NADEGN gt <4>]
Please include any money you may have borrowed for your graduate education.
AMOUNT (RANGE $0 - 100,000):
Applies to: All respondents.

NCFAMO
How much of \
[if NCFAMLN gt <0>]
the $[NCFAMLN] \
[else]
that amount do you still owe?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $100,000):
Applies to: Respondents who have borrowed from family to pay for education since high school.

Section C: Student Expenses and Financial Aid

NCFAMRL

How much of \ [if NCFAMLN gt <0>]
the $[NCFAMLN] \ [else]that amount was for
your graduate education?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $100,000):
Applies to: Respondents who borrowed from family to pay for graduate education.

NCBONDS

ENTER
1 = YES
2 = NO
In paying for your college expenses for the 99-2000 school year, did you \
[if NBPARST eq <6> or (NBDCSD eq <3> and
NBGUARD ne <1>) and AGE lt <30>]
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)and AGE lt <30>]
or your guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)
and AGE lt <30>]
or your guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>
and AGE lt <30>]
or your parent \
[else][if AGE lt <30>]
or your parents \
[else][if AGE ge <30>]
[else]
or your parent(s)/guardian(s) use...
U. S. Savings
Bonds?.................................(ncbonds)
A state-sponsored college savings
plan?..............(ncstsav)
A tuition prepayment
plan?...........................(ncprepay)
A home equity
loan?..................................(ncequity)
Applies to: All respondents.

NCSTSAV

Use state-savings plan
See NCBONDS for description.
Applies to: All respondents.

NCPREPAY

Use tuition prepayment plan
See NCBONDS for description.
Applies to: All respondents.

NCEQUITY

Used home equity loan
See NCBONDS for description.
Applies to: All respondents.

NCPRETYP

What type of prepayment plan did you use?
Was it...
1 = A state-based plan?
2 = A school-based plan?
3 = Or some other kind of private plan?
Applies to: Respondents who used prepayment plan to pay for 1999-2000 education.

NCHOPE

When you filed your 1999 taxes, did you \
[if NBPARST eq <6> or (NBDCSD eq <3> and
NBGUARD ne <1>) and AGE lt <25>]
[else][if NBGRDTYP eq <3> and (NBCARE eq
<2> or NBCARE eq <>)
and AGE lt <25>]
or your guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)
and AGE lt <25>]
or your guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>
and AGE lt <25>]
or your parent \
[else][if AGE lt <25>]
or your parents \
[else]
or your parent(s)/guardian(s) claim the federal Hope
Scholarship tax credit?
1 = YES
2 = NO (OR NEVER HEARD OF IT)
Applies to: Respondents in first or second year of undergraduate study.

NCLIFTIM

Did you \
[if NBPARST eq <6> or (NBDCSD eq <3> and NBGUARD ne <1>) and AGE lt <25>]
[else][if NBGRDTYP eq <3> and (NBCARE eq <2>or NBCARE eq <>)
and AGE lt <25>]
or your guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)
and AGE lt <25>]
or your guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>
and AGE lt <25>]
or your parent \
[else][if AGE lt <25>]
or your parents \
[else]
or your parent(s)/guardian(s) claim the federal Lifetime Learning tax credit when you filed your taxes in 1999?
1 = YES
2 = NO (OR NEVER HEARD OF IT)
Applies to: All respondents except those in first or second year of undergraduate study.

NCCRD00

Are you planning to claim the Hope or Lifetime credit when you file your 2000 income tax?
0 =NOT PLANNING TO BE ENROLLED THIS YEAR
1 =YES - HOPE SCHOLARSHIP TAX CREDIT
3 =YES - LIFETIME LEARNING TAX CREDIT
4 =NO
Applies to: Respondents who used tax credit.

NCCREDIT

Did the availability of the tax credit help you make the decision to enroll in school?
1 = YES
2 = NO
Applies to: Respondents who used tax credit.

NCSCHRES

When you last attended[NATARGET]
during the 99-2000 school year, did you live...
IF MORE THAN ONE RESIDENCE, GIVE THE PLACE LIVED THE LONGEST
1 =On campus in school-owned housing,
2 =Off campus in school-owned housing,
3 =In a fraternity or sorority house,
4 =In an apartment or house other than with parents or guardians,
5 =With your parents or guardians,
6 =With other relatives, or
7 =Some place else?
Applies to: All respondents.

NCOTHRES

[if NACURENR eq <1>]
Did you live with \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent
[else]
your parents when you were not in school during the 99-00 school year?
[else]
Did you live with \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent
[else]
your parents when you were not in school during the 99-00 school year?
[endif]
1 = YES
2 = NO
Applies to: Respondents under age 30.

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NCPAYPAR
[if NBPARST eq <5> and NBDCSD eq <3> and
NBGUARD ne <1>]
Did you \
[else]
Did you \
[endif]
pay \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians room and board to live with them
during the
99-00 school year?
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian room and
board to live with him/her during the 99-00
school year?
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent room and board to live with him/her
during the 99-00 school year?
[else]
your parents room and board to live with them
during the 99-00 school year?
1 = YES
2 = NO
Applies to: Respondents under age 30 who lived with parents/guardians during the 99/00 school year.

NCPARTUI
Did anyone, such as \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians,
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian, [else][if (NBDCSD eq <1> or
NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent,
[else]
your parents, pay your tuition and fees on your
behalf for the 99-2000 school year?
0 = NONE
1 = YES - SOME OF IT
3 = YES - ALL OF IT
Applies to: Respondents under age 30.

NCSCHSUP
Did anyone give you money for school-related
expenses for the 1999-2000 school year?
Please do not include money given for tuition.
1 = YES
2 = NO
Applies to: Respondents under age 30.

NCSUPAMT
How much (were you given for school-related
expenses other than tuition)?
Range ($1-100,000):
Applies to: Respondents under age 30.

NCSUPEST
Was it...
1 = Under $1,000
2 = $1,000 or more?
Applies to: Respondents under 30 who need to estimate amount of parent support for school-related expenses.

NCCSTBKS
During the 99-2000 school year, about how much did
you spend on...
Books and supplies for classes?
RANGE ($0 - $5,000) :
Special equipment, such as computers, microscopes,
and tools?
RANGE ($0 - $15,000) :
Applies to: All respondents.

NCCMPTR
Cost of computers and special equipment
See NCCSTBKS for description.
Applies to: All respondents.

NCOUTST
At [NATARGET],
did you pay out-of-state or out-of-district tuition or
fees during the 99-00 school year?
1 = YES
2 = NO
Applies to: Respondents who attend public institutions.

NCREPAY

Are you currently repaying any student loans other than to family and friends?
1 = YES
2 = NO
Applies to: All respondents.

NCRPYAMT

How much do you pay each month on your student loans?
RANGE ($25 - $5,000):
Applies to: Respondents in loan repayment.

NCRPYPAR

Are your \
[if NBPARST le <5>]
parents \
[else]
guardians \
[endif]
helping you to repay your student loans?
1 = YES
2 = NO
Applies to: Respondents under 30 in loan repayment.

NDNUMJOB
My next questions have to do with jobs you've held
while you were enrolled at [NATARGET]
during the 99-2000 school year.
[if YWORKST eq <1>]
Including any work study jobs you may have, how many
jobs for pay did you have during the 1999-2000 school year?
[else][if YASSIST eq <1>]
Including any assistantships you may have, how many jobs for pay did you have during the 1999-2000 school year?
[else]
How many jobs for pay did you have
during the 1999-2000 school year?
[endif][endif]
VERIFY NUMBER OF JOBS OVER 4.
COUNT ONLY UNIQUE JOBS.
RANGE (0-9):
Applies to: All respondents.

NDHOURS
During the 99-2000 school year, how many hours did you work per week while you were enrolled ?
PLEASE EXCLUDE SUMMER HOURS IF NOT ENROLLED DURING THE SUMMER.
RANGE (0-99):
Applies to: Respondents who worked while enrolled.

NDENRWRK
While you were enrolled and working,
would you say you were primarily...
1 = A student working to meet expenses or
2 = An employee who decided to enroll in school?
Applies to: Respondents who worked while enrolled.

NDWRKRSN
What was your main reason for working while
you were enrolled? Was it to...
1 = Earn spending money?
2 = Pay tuition, fees, or living expenses? or
3 = Gain job experience?
Applies to: Respondents who are primarily students who work.

NDCOOP1
During the 99-2000 school year, did you participate
in a paid internship, apprenticeship, work study,
cooperative education program, or assistantship?
COLLECT UP TO 3.ENTER 0 FOR NONE.
1 = INTERNSHIP
2 = APPRENTICESHIP
3 = WORK STUDY
4 = COOPERATIVE EDUCATION
5 = ASSISTANTSHIP
Applies to: Respondents who worked while enrolled, excluding graduate students who have already reported having an assistantship.

NDCOOP2
Internship/apprenticeship/work-study-2
See NDCOOP1 for description.
Applies to: Respondents who worked while enrolled, excluding graduate students who have already reported having an assistantship.

NDCOOP3
Internship/apprenticeship/work-study-3
See NDCOOP1 for description.
Applies to: Respondents who worked while enrolled, excluding graduate students who have already reported having an assistantship.

NDWCMSRV
Was your work study job part of a community
service project?
1 = YES
2 = NO
Applies to: Undergraduate respondents with work-study.

NDLTRCY
Was your work study job involved with literacy
education or some other tutoring?
1 = YES
2 = NO
Applies to: Undergraduate respondents with work-study.

NDOCCCD
Enrolled occupation-code
Applies to: Respondents who worked while enrolled, who provided a valid occupation string.

NDONOFF
Was your job located primarily on or off campus?
1 = ON CAMPUS
2 = OFF CAMPUS
3 = BOTH ON AND OFF CAMPUS
Applies to: Respondents who worked while enrolled.

NDSCHEMP
Were you working for [NATARGET]
or for someone else?
1 = [NATARGET]
2 = SOMEONE ELSE
3 = SELF-EMPLOYED
Applies to: Respondents who worked while enrolled.

NDEMPTYP
Were you working for...
READ OPTIONS AS NEEDED.
1 =A private, for profit company?
2 =A NONPROFIT OR PRIVATE, NOT-FOR-PROFIT COMPANY
3 =A LOCAL GOVERNMENT
4 =A STATE GOVERNMENT
5 =THE FEDERAL GOVERNMENT (INCLUDING CIVILIAN EMPLOYEES OF THE MILITARY)
6 =THE MILITARY (INCLUDING THE NATIONAL GUARD)
7 =THE SCHOOL
Applies to: Non self-employed respondents who worked while enrolled.

NDXINDCD
Enrolled industry-code
Applies to: Respondents who worked for private for-profit or
not-for-profit company while enrolled.

NDRELMAJ
Would you say your job \
[if NDOCCENR eq <-1> or NDOCCENR eq <-2>]
as an employee as a/an [NDOCCENR]
is related to your major at [NATARGET]?
1 = YES
2 = NO
Applies to: Respondents who worked while enrolled.

NDPREMP
Did you have this job before you
enrolled at [NATARGET]?
1 = YES
2 = NO
Applies to: Respondents who worked while enrolled.

NDSTLEMP
Do you still have this job?
INTERVIEWER:PROBE IF NO
0 = NO
1 = YES
3 = SAME JOB, DIFFERENT EMPLOYER
4 = DIFFERENT JOB, SAME EMPLOYER
Applies to: Respondents who worked while enrolled.

NDSTPE
Date of job termination
Applies to: Respondents who no longer have same job held while enrolled.

NDCURWRK
Are you working anywhere now?
1 = YES
2 = NO
Applies to: Respondents who no longer have same job as while enrolled.

NDEARN
How much did you earn from \ [if NDNUMJOB eq <1> or NDNUMJOB lt <0>]the job [else][if NDNUMJOB gt <1>]
all jobs you held while you were enrolled for the 99-2000 school year?
EXCLUDE SUMMER EARNINGS IF NOT ENROLLED DURING THE SUMMER
RANGE ($10.00 - $100,000):
Was that $[NDEARN] for the entire school year?
1 = ENTIRE YEAR
2 = PER TERM/SEMESTER
3 = PER MONTH
4 = PER WEEK
Applies to: Respondents who worked while enrolled.

NDEARNT
Time period for earnings
See NDEARN for description.
Applies to: Respondents who worked while enrolled.

NDEARNS

How many \ [if NDEARN eq <1> or NDEARN eq <2>]
terms \ [else][if NDEARN eq <3>]months \
[else][if NDEARN eq <4>]weeks did you work during the 99-2000 school year?
RANGE (1-[NDIEARN]):
Applies to: Respondents who worked while enrolled, who reported earnings in a unit of time other than a year.

NDTOTERN

Total calculated earnings for school year
Applies to: Respondents who worked while enrolled.

NDWKSWK

Would you say you worked during all the weeks you were enrolled, most of them, half of them, or less than half?
1 = ALL
2 = MOST
3 = HALF
4 = LESS THAN HALF
Applies to: Respondents who worked while enrolled.

NDCLASS

Earlier you said you received a teaching assistantship
from [NATARGET].
As part of that assistantship, did you...
Have full teaching responsibility for one or more courses ?
1 = YES
2 = NO
[if NDCLASS eq <1>]
How many contact hours per week did you have?
RANGE (1-40):
Applies to: Graduate students with a teaching assistantship.

NDCLSHRS

Number of contact hours-class
See NDCLASS for description.
Applies to: Graduate students with a teaching assistantship.

NDDISC

[if NDCLASS eq <1>]
Did you lead \
[else]
Lead \
[endif]
discussion sections for
faculty-taught courses?
1 = YES
2 = NO
[if NDDISC eq <1>]
How many contact hours per week did you have?
RANGE (1-40):
Applies to: Graduate students with a teaching assistantship.

NDDISHRS

Number of contact hours-discussion
See NDDISC for description.
Applies to: Graduate students with a teaching assistantship.

NDLAB

[if NDCLASS eq <1>]
Did you supervise \
[else]
Supervise \
[endif]
lab sections for
faculty-taught courses?
1 = YES
2 = NO
[if NDLAB eq <1>]
How many contact hours per week did you have?
RANGE (1-40):
Applies to: Graduate students with a teaching assistantship.

NDLABHRS

Number of contact hours-lab
See NDLAB for description.
Applies to: Graduate students with a teaching assistantship.

NDGRADE

[if NDCLASS eq <1>]
Did you assist \
[else]
Assist \
[endif]
the faculty with grading or
other instruction-related activities?
1 = YES
2 = NO
[if NDGRADE eq <1>]
How many hours did that require per week?
RANGE (1-40):
Applies to: Graduate students with a teaching assistantship.

NDGRAHRS

Number of hours required-grading
See NDGRADE for description.
Applies to: Graduate students with a teaching assistantship.

NDOFFICE

As part of your teaching assistantship, did you hold office hours?
1 = YES
2 = NO
[if NDOFFICE eq <1>]
On average, how many office hours do you hold each week?
F5 = NO MINIMUM HOURS
REQUIRED RANGE (1-40):
Applies to: Graduate students with a teaching assistantship.

NDOFFHRS

Number of office hours/week
See NDOFFICE for description.
Applies to: Graduate students with a teaching assistantship.

NDAFFORD

Could you have afforded to attend school if you had not worked?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who worked.

NDSUMMR

Did you work for pay during the summer of 1999?
1 = YES
2 = NO
Applies to: Undergraduate respondents under 25.

NDSMRHR

How many hours per week did you typically work during the summer of 1999?
RANGE (1-80):
Applies to: Undergraduate respondents under 25 that worked during the summer of 1999.

NDSMRSAV

In dollars, about how much of your summer earnings would you estimate you saved to pay for educational expenses during the 99-2000 school year?
RANGE ($0 - $10,000):
Applies to: Undergraduate respondents under 25 that worked during the summer of 1999.

NDRSTRCT

[if NDLNEXT eq NDRAND1]
Did having a job while you were
going to school...
[else]
(Did having a job while you were
going to school...)
[endif]
Restrict your choice of classes?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work.

NDLIMCLS

[if NDLNEXT eq NDRAND1]
Did having a job while you were
going to school...
[else]
(Did having a job while you were
going to school...)
[endif]
Limit the number of classes you could take?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work

NDLIMSCH
[if NDLNEXT eq NDRAND1]
Did having a job while you were going to school...
[else]
(Did having a job while you were going to school...)
[endif]
Limit the class schedule you could have?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work.

NDLIMLIB
[if NDLNEXT eq NDRAND1]
Did having a job while you were going to school... [else]
(Did having a job while you were going to school...)
[endif]Limit your access to the library?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work.

NDHLPCLS
[if NDLNEXT eq NDRAND1]
Did having a job while you were going to school...
[else]
(Did having a job while you were going to school...)
[endif]
Help you with class work?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work.

NDHLPCAR
[if NDLNEXT eq NDRAND1]
Did having a job while you were going to school...
[else]
(Did having a job while you were going to school...)
[endif]
Help you with career preparation?
1 = YES
2 = NO
Applies to: Respondents who are primarily students who work.

NDEFFGRD
Would you say that working while you were going to school had a positive effect, a negative effect, or no effect on the grades you earned?
1 = POSITIVE EFFECT
2 = NEGATIVE EFFECT
3 = NO EFFECT
Applies to: Respondents who are primarily students who work.

NDENRICH
[if NDLNXT2 eq NDRAND2]
Was the following an important consideration in your decision to go to school while you were working....
[else]
(Was the following an important consideration in your decision to go to school while you were working....)
[endif]
Personal enrichment or interest in the subject?
1 = YES
2 = NO
Applies to: Employees who decide to enroll in school.

NDADDED
[if NDLNXT2 eq NDRAND2]
Was the following an important consideration in your decision to go to school while you were working....
[else]
(Was the following an important consideration in your decision to go to school while you were working....)
[endif]
Obtaining additional education that is required by your job?
1 = YES
2 = NO
Applies to: Employees who decide to enroll in school.

NDCAREER

[if NDLNXT2 eq NDRAND2]
Was the following an important consideration
in your decision to go to school while you
were working....
[else]
(Was the following an important consideration
in your decision to go to school while you
were working....)
[endif]
Gaining skills to advance in your current job
or for a new career?
1 = YES
2 = NO

Applies to: Employees who decide to enroll in school.

NDDEGREE

[if NDLNXT2 eq NDRAND2]
Was the following an important consideration
in your decision to go to school while you
were working....
[else]
(Was the following an important consideration
in your decision to go to school while you
were working....)
[endif]
Completing a degree or certificate program?
1 = YES
2 = NO

Applies to: Employees who decide to enroll in school.

NDEXPWRK

Did \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent \
[else]
your parents expect you to have a job
for pay during the 99-2000 school year?
1 = YES
2 = NO

Applies to: Undergraduate respondents under 25 with parents/guardians.

NDHRSEXP

How many hours per week did \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
they [else][if (NBGRDTYP eq <1> or NBGRDTYP eq
<2>) and
(NBCARE eq <2> or NBCARE eq <>)]
he/she [else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
he/she [else]
they expect you to work?
RANGE (1-40):

Applies to: Undergraduate respondents under 25 whose parents expect them to work while enrolled.

NDLICENS

For some jobs, licensing or certification is required. How many licenses do you hold?
RANGE (0-4):

Applies to: All respondents.

NDLIC1

Which license(s) or certificate(s) do you hold?
COLLECT UP TO 3 (ENTER 0 FOR NO MORE.)

1 = AUTOMOTIVE MECHANIC REPAIR
2 = BUSINESS (BROKER, CPA, REALTOR)
3 = CHILD CARE DAY CARE TEACHER AIDE
4 = COMMERCIAL OPERATOR/TRANSPORT
5 = COMMUNICATIONS BROADCAST (FCC)
6 = CMPTR, ELECTRONIC, TV, VCR REPAIR
7 = CMPTR PROGRAMMER SYSTEMS TECH
8 = COSMETOLOGY, BEAUTICIAN, BARBER
9 = COUNSELOR, PSYCHOLOGIST
10 = CRAFTS (ELECTRICIAN CRPNTR MASON)
12 = FOOD SERVICES
13 = INSURANCE UNDERWRITING
14 = LAW OR LEGAL (NOT PARALEGAL)
15 = LEGAL ASSISTANT PARALEGAL
16 = MEDICAL (PHYSICIAN)
17 = MED/DENTAL ECH. OR THERAPIST/EMT
18 = VENDOR SPECIFIC CERT(MCSE/NOVELL)
19 = NURSE AIDE/HOME HEALTH AIDE
20 = NURSING (RN, LPN)
21 = PERSONAL SVCS (MASSAGE THERAPY)
22 = PHARMACY
24 = OTHER LICENSE OR CERTIFICATE

Applies to: Respondents who hold licenses.

NDLIC2

See NDLIC1 for description.

Applies to: Respondents who hold licenses.

NDLIC3

See NDLIC1 for description.

Applies to: Respondents who hold licenses.

NDINT1

During the 99-2000 school year, did you participate
in an unpaid internship, apprenticeship, or cooperative
education program?

COLLECT UP TO 3.ENTER 0 FOR NONE.
1 = INTERNSHIP
3 = APPRENTICESHIP
4 = COOPERATIVE EDUCATION

Applies to: Respondents who did not work while enrolled in 99-00.

NDINT2

See NDINT1 for description.

Applies to: Respondents who did not work while enrolled in 99-00.

NDINT3

See NDINT1 for description.

Applies to: Respondents who did not work while enrolled in 99-00.

NDCOMSRV

Did you do any community service or
volunteer work during the past year,
other than court-ordered service ?
1 = YES
2 = NO

Applies to: All respondents.

NDVLTP1

(What was the community service or volunteer work that you
did?)/
What did you do?
ENTER 0 FOR NO MORE
1 = TUTORING, OTHER EDUCATION-RELATED WITH KIDS
2 = OTHER WORK WITH KIDS (COACHING, SPORTS, BIG BROTHER/SISTER ETC.)
3 = FUNDRAISING (NOT POLITICAL)
4 = FUNDRAISING (POLITICAL)
5 = HOMELESS SHELTER/SOUP KITCHEN
6 = TELEPHONE CRISIS CENTER/RAPE CRISIS/INTERVENTION
7 = NEIGHBORHOOD IMPROVEMENT/CLEAN-UP/HABITAT FOR HUMANITY
8 = HEALTH SERVICES/HOSPITAL, NURSING HOME, GROUP HOME
9 = ADULT LITERACY PROJECT
10 = SERVICE TO THE CHURCH
11 = VOLUNTEER FIRE/EMT
12 = OTHER

Applies to: Respondents who volunteered in the past year.

NDVLTP2

See NDVLTP1 for description.

Applies to: Respondents who volunteered in the past year.

NDVLTP3

See NDVLTP1 for description.

Applies to: Respondents who volunteered in the past year.

NDVLGRAD

Was your volunteer work required
for your undergraduate program?
1 = YES
2 = NO

Applies to: Undergraduates who volunteered in the past year.

NDVLHRS

On average, how many hours per month did you
volunteer in the last 12 months?
F5 = ONE TIME EVENT
RANGE (1-160):

Applies to: Respondents who volunteered in the past year.

Section D: Student Finances and Employment

NDDEP99

Now I'd like to ask you a few questions about your income.
Did anyone claim you as a dependent on their 1999 taxes?
0 = NO
1 = YES, PARENTS/GUARDIANS
3 = YES, ANOTHER INDIVIDUAL
Applies to: Aid non-applicants.

NDDEP00

Will anyone be claiming you as a dependent on their 2000 taxes?
0 = NO
1 = YES, PARENTS/GUARDIANS
3 = YES, ANOTHER INDIVIDUAL
Applies to: Aid non-applicants.

NDINC9

Now I'd like to ask you a few questions about your income in calendar year 1999.(Your 1999 calendar year income includes money earned both while you were enrolled in school and while you were not enrolled or on break.)
How much did you earn from work in 1999?
RANGE ($0 - $3,000,000):
Applies to: All respondents.

NDINC9V

Let me make sure I entered that correctly.
Your income for 1999 was:$[NDINC9]?
1 = YES
2 = NO
Applies to: Aid non-applicants who report a 1999 income greater than 1,000,000.

NDINC8E

Was the amount you earned in 1998 about the same as you earned in 1999?
1 = YES
2 = NO
Applies to: Aid non-applicants.

NDINC8

How much did you earn from work in 1998?
RANGE ($0 - $3,000,000):
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

NDINC99

How much would you estimate your spouse earned from work in 1999?
RANGE ($0 - $3,000,000):
Note: Values over $500,000 were recoded as $500,000.Values between $0 and $100 were recoded as $100.
Applies to: Married aid non-applicants.

NDINS8E

Was the amount your spouse earned in 1998 about the same as \
[if NBGENDR eq <2>]
he \
[else][if NBGENDR eq <1>]
she earned in 1999?
1 = YES
2 = NO
Applies to: Married aid non-applicants.

NDINC98

How much did your spouse earn from work in 1998?
RANGE ($0 - $3,000,000):
Applies to: Married aid non-applicants whose spouse's earnings were not the same in 1998 as in 1999.

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NDOIN99

[if TOTAL WORK INCOME gt <0>]
Including the $[TOTAL WORK INCOME] that you \
[else]
What was the total income that you \
[endif]
[if NBMARR eq <2>]
and your spouse
[else]
[endif]
[if TOTAL WORK INCOME gt <0>]
earned from work, what was your total income
[else]
earned from all sources , prior to taxes and deductions, for 1999?
Please exclude any student financial aid, scholarships, or grants you may have received for the year.
NOTE: IF R IS UNSURE, PROBE FOR AMOUNT TO THE NEAREST THOUSAND
F5 = SAME AS AMOUNT EARNED FROM WORK RANGE ($0 - $3,000,000):$
Applies to: All respondents who provided valid work-income values.

NDOIN98E

Was the amount you earned in 1998 (from sources of income
other than your salary\
[if NBMARR eq <2>]
and your spouse's salary)
about the same as you earned in 1999?
[else]
about the same as you earned in 1999?
[endif]
1 = YES
2 = NO
Applies to: Aid non-applicants.

NDOIN98

[if TOTAL 1998 WORK INCOME gt <0>]
Including the $[TOTAL 1998 WORK INCOME] that you \
[else]
Including the income that you \
[endif]
[if NBMARR eq <2>]
and your spouse
[else]
[endif]
[if TOTAL 1998 WORK INCOME gt <0>]
earned from work,
[else]
earned,
[endif]
what was your total income, from all sources , prior to taxes and deductions, for 1998?
Please exclude any student financial aid, scholarships, or grants you may have received for the year.
NOTE: IF R IS UNSURE, PROBE FOR AMOUNT TO THE NEAREST THOUSAND
F5 = SAME AS AMOUNT EARNED FROM WORK RANGE ($0 - $3,000,000):$
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

NDPARNC

What would you estimate \
[if NBGRDTYP eq <3> and (NBCARE eq <2>
or NBCARE eq <>)]
your guardians'
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>)
and
(NBCARE eq <2> or NBCARE eq <>)]
your guardian's
[else][if (NBDCSD eq <1> or NBDCSD eq <2>)
and NBGUARD eq <2>]
your parent's
[else]
your parents' income was in 1999?
Was it....
1 = Up to $30,000,
2 = $30,001 to $60,000
3 = $60,001 to $90,000, or
4 = Over $90,000?
Applies to: Aid non-applicants under 25.

NDUNTAX
Since July 1, 1999, did you \
[if NBMARR eq <2>]
or your spouse
[else]
receive any untaxed income or benefits, such as TANF (AFDC), Social Security, worker's compensation,
disability payments, or child support?
1 = YES
2 = NO
Applies to: All respondents

NDTANF
ENTER 1 = YES, 2 = NO
SINCE JULY 1, 1999
Did you receive... TANF
(AFDC)..................................(ndtanf)
Social Security
benefits?...............................(ndsocsec)
Workers compensation?.....................(ndwrkcmp)
Disability payments?............................(nddisab)
[if NBDEPS eq <1>]
Child support?.....................(ndchild)
Food stamps?.......................(ndstmps)
Applies to: Respondents who received untaxed benefits.

NDSOCSEC
Receive social security
See NDTANF for description.
Applies to: Respondents who received untaxed benefits.

NDWRKCMP
Receive worker^s compensation
See NDTANF for description.
Applies to: Respondents who received untaxed benefits.

NDDISAB
Receive disability payments
See NDTANF for description.
Applies to: Respondents who received untaxed benefits.

NDCHILD
Receive child support
See NDTANF for description.
Applies to: Respondents with dependents who received untaxed benefits.

NDSTMPS
Receive food stamps
See NDTANF for description.
Applies to: Respondents who received untaxed benefits.

NDTANFCR
Are you currently receiving
assistance from TANF (AFDC)?
1 = YES
2 = NO
Applies to: Respondents who received TANF.

NDTANF1
CODE ALL THAT APPLY.ENTER 0 FOR NONE OR NO MORE.
[if (NDTANFCR eq <1> and NACURENR eq <1>) or (NDTANFCR eq <2> and NACURENR eq <1>)]
Did you receive TANF (AFDC) before you enrolled at [NATARGET]?
[else][if NDTANFCR eq <1> and NACURENR eq <2>]
Did you receive TANF (AFDC) before you were enrolled at [NATARGET],
while you were enrolled, or both?
[else][if NDTANFCR eq <2> and NACURENR eq <2>]
Did you receive TANF (AFDC) before you were enrolled at [NATARGET],
while you were enrolled, or since you were enrolled at [NATARGET]?
[endif][endif][endif]
1 = BEFORE
2 = DURING
3 = AFTER
Applies to: Respondents who have received TANF.

NDTANF2
See NDTANF1 for description.
Applies to: Respondents who have received TANF.

NDTANF3

See NDTANF1 for description.

Applies to: Respondents who have received TANF who were not enrolled at the time of the interview.

NDGVAD

Did you receive any government assistance to help pay for childcare, transportation, or housing expenses while you were enrolled during the 99-2000 school year?

1 = YES
2 = NO

Applies to: Respondents who received untaxed benefits.

NDGVAD1

ENTER 0 FOR NO MORE

What type of assistance did you receive?

1 =CHILDCARE
2 =TRANSPORTATION
3 =HOUSING (SECTION 8 OR PUBLIC HOUSING)
4 =OTHER

Applies to: Respondents who received assistance with childcare, transportation, or housing expenses in 99-00.

NDGVAD2

Type of government assistance received

See NDGVAD1 for description.

Applies to: Respondents who received assistance with childcare, transportation, or housing expenses in 99-00.

NDGVAD3

Type of government assistance received

See NDGVAD1 for description.

Applies to: Respondents who received assistance with childcare, transportation, or housing expenses in 99-00.

NDGVAD4

Type of government assistance received

See NDGVAD1 for description.

Applies to: Respondents who received assistance with childcare, transportation, or housing expenses in 99-00.

NDCHGPLN

Have any of the TANF (AFDC) requirements caused you to change the plans you made for your education?

1 = YES
2 = NO

Applies to: Respondents who receive TANF.

NDCHG1

ENTER 0 FOR NO MORE

What did you have to change in your education plans?

1 =STOPPED OUT/DROPPED OUT OF SCHOOL
2 =SWITCHED TO A NON-DEGREE PROGRAM
3 =BEGAN A POSTSEC EDUCATION PROGRAM
4 =BEGAN WORKING WHILE GOING TO SCHOOL
5 =REDUCED CREDIT HOURS OR NUMBER OF COURSES
6 =INCREASED CREDIT HOURS OR NUMBER OF COURSES
7 =FINISHED MY PROGRAM MORE QUICKLY
8 =OTHER

Applies to: Respondents who had to change education plans due to TANF requirements.

NDCHG2

Change in ed plans due to TANF rqmts-2

See NDCHG1 for description.

Applies to: Respondents who had to change education plans due to TANF requirements.

NDCHG3

Change in ed plans due to TANF rqmts-3

See NDCHG1 for description.

Applies to: Respondents who had to change education plans due to TANF requirements.

NDCHG4

Change in ed plans due to TANF rqmts-4

See NDCHG1 for description.

Applies to: Respondents who had to change education plans due to TANF requirements.

Section D: Student Finances and Employment

NDCASH
What would you estimate is the total amount of cash and savings you have in your bank accounts?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDHOME
Do you own your home or pay a mortgage on a home?
1 = YES
2 = NO
Applies to: Respondents who do not live in school-owned housing or with parents/guardians.

NDHMVAL
How much would you say your home is worth?
RANGE ($1 - $1,000,000):
Applies to: Respondents who do not live in school-owned housing or with parents/guardians.

NDHMDEBT
How much do you currently owe on your mortgage?
RANGE ($0 - $950,000):
Applies to: Respondents who do not live in school-owned housing or with parents/guardians.

NDINVT1
Do you own a business, farm, or have other investments?
ENTER 0 FOR NONE OR NO MORE
1 = BUSINESS
2 = FARM
3 = OTHER INVESTMENTS
Applies to: Aid non-applicants.

NDINVT2
Other investments-2
See NDINVT1 for description.
Applies to: Aid non-applicants.

NDINVT3
Other investments-3
See NDINVT1 for description.
Applies to: Aid non-applicants.

NDBSVAL
What would you estimate is the total worth of your business?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDBSEST
Is it over $10,000?
1 = YES
2 = NO
Applies to: Respondents who must estimate the total worth of their business investment.

NDBSOWE
How much do you currently owe on your business?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDFMVAL
What would you estimate is the total worth of your farm?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDFMEST
Is it over $10,000?
1 = YES
2 = NO
Applies to: Respondents who must estimate the total worth of their farm investment.

NDFMOWE
How much do you currently owe on your farm?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDINVAL
What would you estimate is the total worth of your other investments?
RANGE ($0 - $950,000):
Applies to: Aid non-applicants.

NDINEST
Is it over $10,000?
1 = YES
2 = NO
Applies to: Respondents who must estimate the total worth of their other investments.

Section D: Student Finances and Employment

NDINOWE

How much do you currently owe on your other investments?
RANGE($0 - $950,000):
Applies to: Aid non-applicants.

NDPARBUS

[if NDLFIL eq <1>]
Did your \
[else][if NDLFIL eq <2>]
Does your \
[else]
Do your \
[if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
guardians \
[else]
[if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else]
[if (NBDCSD eq <1> or NBDCSD eq <2>) and NBGUARD eq <2>]
parent \
[else]
parents own their home or pay a mortgage on a home?
1 = YES
2 = NO
Applies to: Aid non-applicants under 25.

NDPARNV

[if NDLFIL eq <1>]
Did your \
[else][if NDLFIL eq <2>]
Does your \
[else]
Do your \
[endif]
[endif]
[if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>) and NBGUARD eq <2>]
parent \
[else]
parents \
own a business, farm, or other real estate?
1 = YES
2 = NO
Applies to: Aid non-applicants under 25.

NDNUMCRD

How many credit cards do you have in your own name, that are billed to you?
0 = NONE
1 = 1 OR 2
2 = 3 OR MORE
Applies to: All respondents.

NDCRDTUI

Did you use your credit card(s) to pay your 99-2000 tuition?
1 = YES
2 = NO
Applies to: Respondents with credit cards.

NDPAYOFF

Do you usually pay off your credit card balances each month, or carry balances over from month to month?
1 = PAYOFF BALANCES
2 = CARRY BALANCES
Applies to: Respondents with credit cards.

NDCRDBAL

What was the balance due on all cards according to your last statement?
RANGE: ($0 - $125,000)
Applies to: Respondents with credit cards who carry balances.

NDCRDPAR

[if NDLFIL eq <1>]
Did your \
[else][if NDLFIL eq <2>]
Does your \
[else]
Do your \
[endif]
[endif]
[if NBGRDTYP eq <3> and (NBCARE eq <2> or NBCARE eq <>)]
guardians \
[else][if (NBGRDTYP eq <1> or NBGRDTYP eq <2>) and
(NBCARE eq <2> or NBCARE eq <>)]
guardian \
[else][if (NBDCSD eq <1> or NBDCSD eq <2>) and NBGUARD eq <2>]
parent \
[else]
parents \
help you pay your credit card bills?
1 = YES
2 = NO
Applies to: Respondents under 25 with credit cards.

Section E: Education Experiences

NEREMEVR

Now I'd like to ask you a few questions about your
education experiences and future plans.
Since you've been in college, have you ever taken remedial or developmental courses to improve your basic skills, such as in mathematics, reading, or writing?
1 = YES
2 = NO
Applies to: All undergraduate respondents.

NEREMSY

[if NAUGYR eq <1> or NAUGYR eq <2>]
Did you take any remedial or developmental courses during the 99-2000 school year?
1 = YES
2 = NO
Applies to: First or second year undergraduates who have taken remedial or developmental courses.

NEREAD

ENTER 1 = YES, 2 = NO
Did you take the courses to improve your skills in...
Reading?..........................(neread)
Writing?..........................(newrite)
Mathematics?.................(nemath)
Study skills?...................(nestudy)
English language skills?.............................(neenglis)
Applies to: First or second year undergraduates who have taken remedial or developmental courses during the 99-2000 school year.

NEWRITE

Respondent took remedial courses-writing
See NEREAD for description.
Applies to: First or second year undergraduates who have taken remedial or developmental courses during the 99-2000 school year.

NEMATH

Respondent took remedial courses-math
See NEREAD for description.
Applies to. First or second year undergraduates who have taken remedial or developmental courses during the 99-2000 school year.

NESTUDY

Respondent took remedial courses-study
See NEREAD for description.
Applies to: First or second year undergraduates who have taken remedial or developmental courses during the 99-2000 school year.

NEENGLIS

Respondent took remedial courses-English
See NEREAD for description.
Applies to: First or second year undergraduates who have taken remedial or developmental courses during the 99-2000 school year.

NEGRE

[if NAUGYR gt <2>]
Have you taken the GRE (Graduate Record Exam) as part of a graduate school application?
[else]
Did you take the GRE (Graduate Record Exam) as part of your application to graduate school?
[endif]
1 = YES
2 = NO
Applies to: Third and fourth year undergraduates and graduate/first professional respondents.

NEGREV

What was your score on the verbal section of the GRE?
RANGE (200-800):
Applies to: Respondents who took the GRE, whose preloaded GRE verbal score was blank.

NEGREM

What was your score on the math section of the GRE?
RANGE (200-800):
Applies to: Respondents who took the GRE, whose preloaded GRE quantitative score was blank.

NEGREA

What was your score on the analytic section of the GRE?
RANGE (200-800):
Applies to: Respondents who took the GRE, whose preloaded GRE analytic score was blank.

Section E: Education Experiences

NEOTHTST

[if YGREV gt <0> or YGREM gt <0> or YGREA gt <0>]
Other than the GRE (Graduate Record Exam), did you take any other admissions tests when you were applying to enter your graduate program?
[else][if NAUGYR gt <2>]
Have you taken any other graduate admissions tests as part of a graduate school application?
[else]
Did you take any \
[if NEGRE eq <1>]
other admissions tests when you were applying to enter your graduate program?
[else] admissions tests when you were applying to enter your graduate program?
1 = YES
2 = NO
Applies to: Third and fourth year undergraduates and graduate/first professional respondents who took the GRE.

NETEST1

What test(s) did you take?
COLLECT UP TO 3 RESPONSES
ENTER 0 FOR NO MORE
1 =GMAT(GRADUATE MANAGEMENT ADMISSION TEST)
2 =LSAT(LAW SCHOOL ADMISSION TEST)
3 =MCAT(MEDICAL COLLEGE ADMISSION TEST)
4 =MAT(MILLER ANALOGIES TEST)
5 =GRE SUBJECT TEST
6 =OTHER
Applies to: Respondents who have taken other admissions tests.

NETEST2

Graduate admissions test-2
See NETEST1 for description.
Applies to: Respondents who have taken other admissions tests.

NETEST3

Graduate admissions test-3
See NETEST1 for description.
Applies to: Respondents who have taken other admissions tests.

NEGMAT

What was your total score on the GMAT?
RANGE (200-800):
Applies to: Respondents who took the GMAT.

NELSAT

What was your score on the LSAT?
RANGE (120-180):
Applies to: Respondents who took the LSAT.

NEGRESUB

What GRE subject test did you take?
1 = BIOCHEMISTRY, CELL AND MOLECULAR BIOLOGY
2 = BIOLOGY
3 = CHEMISTRY
4 = COMPUTER SCIENCE
5 = ECONOMICS
6 = ENGINEERING
7 = GEOLOGY
8 = HISTORY
9 = LITERATURE IN ENGLISH
10 = MATHEMATICS
11 = MUSIC
12 = PHYSICS
13 = PSYCHOLOGY
14 = SOCIOLOGY
Applies to: Respondents who took a GRE subject test.

NEGREB2

See NEGRESUB for description.
Applies to: Respondents who took a GRE subject test.

NEGREB3

See NEGRESUB for description.
Applies to: Respondents who took a GRE subject test.

Section E: Education Experiences

NEEXPAR

What is the highest level of education you expect to complete at [NATARGET]?

1 = NO DEGREE OR CERTIFICATE EXPECTED
2 = CERTIFICATE
3 = ASSOCIATE'S DEGREE (AA)
4 = BACHELOR'S DEGREE (BA)
5 = POST-BACCALAUREATE CERTIFICATE
6 = MASTER'S DEGREE (MA/MS)
7 = ADVANCED DEGREE-DOCTORATE OR FIRST-PROFESSIONAL DGREE (PHD, JD, MD, DDS, EDD, ETC)
98 = NO DEGREE-TRANSFERRING TO A 2-YEAR SCHOOL
99 = NO DEGREE-TRANSFERRING TO A 4-YEAR SCHOOL

Applies to: Respondents who are currently enrolled at the TARGET school and working on less than a doctoral degree.

NEEXPEVR

What is the highest level of education you ever expect to complete?

1 =NO DEGREE OR CERTIFICATE
2 =CERTIFICATE
3 =ASSOCIATE'S DEGREE
4 =BACHELOR'S DEGREE
5 =POST-BACCALAUREATE CERTIFICATE
6 =MASTER'S DEGREE (MA/MS)
7 =ADVANCED DEGREE-DOCTORATE OR FIRST-PROFESSIONAL DEGREE (PHD, JD, MD, DDS, EDD, ETC)

Applies to: Respondents who are working on less than a doctoral degree.

NEEXPADV

What type of advanced degree do you expect to complete?
DOCTORFIRST-PROFESSIONAL

10 = PHILOSOPHY (PHD)
11 = EDUCATION (EDD)
12 = THEOLOGY (THD)
13 = BUSINESS EDUCATION
14 = ENGINEERING
15 = FINE ARTS (DFA)
16 = PUBLIC ADMINISTRATION (DPA)
17 = SCIENCE (DSC/SCD)
18 = PSYCHOLOGY (PSYD)
20 = CHIROPRACTIC
21 = DENTISTRY
22 = MEDICINE
23 = OPTOMETRY
24 = OSTEOPATHIC MEDICINE
25 = PHARMACY
26 = PODIATRY
27 = VETERINARY MEDICINE
28 = LAW
29 = THEOLOGY (M.DIV, D.MIN)

Applies to: Respondents who expect to earn an advanced degree.

NEREASON

What was your main reason for enrolling at [NATARGET]?

1 =LEARN JOB SKILLS/PREPARE FOR JOB
2 =TO OBTAIN DEGREE/CERTIFICATE
3 =TRANSFER TO A 2-YEAR SCHOOL
4 =TRANSFER TO A 4-YEAR SCHOOL
5 =TRANSFER BUT NOT KNOWN WHERE
6 =PERSONAL ENRICHMENT
7 =TAKING COURSE TO MEET REQUIREMENTS FOR DEGREE/CERTIFICATE

Applies to: Respondents enrolled in less than 4-year schools.

NEEDPLN

What are your plans for school this year (the 2000-2001 school year)?
Are you...

1 = Not enrolled,
2 = Enrolled full-time, or
3 = Enrolled part-time?

Applies to: All respondents.

Section E: Education Experiences

NEWKPLN
[if NEEDPLN gt <1>]
While you are enrolled during the 2000-2001 school year,
are you...
[else]
What are your plans for work this year (in 2000-2001)?
Are you...
[endif]
1 = Not working,
2 = Working full-time, or
3 = Working part-time?
Applies to: All respondents.

NEGRDRAT
ENTER 1 = YES, 2 = NO
In deciding to attend [NATARGET]
did you consider...
The graduation rate?............................(negrdrat)
[if NALEVEL eq <3>]
The job placement rate?..........................(nejobrat)
Campus safety?...................................(nesafety)
Applies to: All respondents.

NEJOBRAT
Consider job rate
See NEGRDRAT for description.
Applies to: All respondents in less-than-two-year institutions.

NESAFETY
Consider campus safety
See NEGRDRAT for description.
Applies to: All respondents.

NEDSTED
During the 99-2000 school year, did you
take any courses for credit that were
distance education courses?
(By distance education, I mean courses delivered off campus using live, interactive TV or audio, pre-recorded TV or video, CD-ROM, or a computer-based
system such as the Internet, e-mail, or chat rooms. Distance education does not include correspondence
courses.)
1 = YES
2 = NO
Applies to: All respondents.

NEDSLOC
Was this course (Were these courses) offered through [NATARGET],
somewhere else, or both?
1 = [NATARGET],
2 = SOMEWHERE ELSE
3 = BOTH
Applies to: Respondents taking distance education course(s).

NELIVE
Did your distance education classes use......
ENTER 1 = YES, 2 = NO
Live, interactive TV or audio?.....................(nelive)
Pre-recorded TV or audio?..........................(nerecord)
The Internet?.....................................(nenet)
Applies to: Respondents taking distance education course(s).

NERECORD
Distance education-pre-recorded
See NELIVE for description.
Applies to: Respondents taking distance education course(s).

NENET
Distance education-internet
See NELIVE for description.
Applies to: Respondents taking distance education course(s).

NEENTPGM
Is your entire program taughtthrough distance education?
1 = YES
2 = NO
Applies to: Respondents taking distance education course(s).

NECMPSAT
Compared to other courses you've taken ,are you more satisfied, equally satisfied, or less satisfied with the quality of instruction you've received in your distance education courses?
1 =MORE SATISFIED
2 =LIKED BOTH THE SAME
3 =LESS SATISFIED
4 =ALL COURSES WERE DISTANCE ED COURSES
Applies to: Respondents taking distance education course(s).

Section E: Education Experiences

NEEMAIL

Please tell me how frequently you did each of the following as an undergraduate. Was it never, sometimes, or often?

0 = NEVER
1 = SOMETIMES
2 = OFTEN

How frequently did you use e-mail to communicate with students or faculty about course-related matters......(neemail)

Search the Internet for information for homework or research?..(neinfo)

Participate in electronic chat rooms for class discussion or homework?..(nechat)

Use spreadsheet software like Lotus or Excel?.........(nespread)

Program in languages like C++, JAVA, SPSS, HTML?......(nelang)

Use word-processing software (Word, WordPerfect) to write papers for courses?...................................(nepaper)

Applies to: B&B eligible respondents.

NEINFO

See NEEMAIL for description.
Applies to: B&B eligible respondents.

NECHAT

See NEEMAIL for description.
Applies to: B&B eligible respondents.

NESPREAD

See NEEMAIL for description.
Applies to: B&B eligible respondents.

NELANG

See NEEMAIL for description.
Applies to: B&B eligible respondents.

NEPAPER

See NEEMAIL for description.
Applies to: B&B eligible respondents.

NEGRDPLN

Have you applied to any graduate or professional programs?

1 = YES
2 = NO

Applies to: B&B eligible respondents who are not already in graduate school.

NEGINF1

COLLECT UP TO 3.ENTER 0 FOR NONE OR NO MORE.

How did you get information about graduate programs?

1 =TALKED WITH FACULTY
2 =TALKED WITH OTHER STUDENTS
3 =CONTACTED SCHOOLS DIRECTLY -- INTERNET
4 =CONTACTED SCHOOLS DIRECTLY - OTHER THAN INTERNET
5 =VISITED CAMPUSES
6 =PROFESSIONAL ORGANIZATION OR ASSOCIATION
7 =OTHER

Applies to: B&B eligible respondents who have applied to a graduate/first-professional program.

NEGINF2

See NEGINF1 for description.
Applies to: B&B eligible respondents who have applied to a graduate/first-professional program.

NEGINF3

See NEGINF1 for description.
Applies to: B&B eligible respondents who have applied to a graduate/first-professional program.

NEGRDDEG
[if NADEGN gt <4>]
What degree are you working on at [YNPSCHL]?
[else][if NADEG1 eq <7>]
What degree are you working on at [NAS1NAME]?
[else][if NADEG2 eq <7>]
What degree are you working on at [NAS2NAME]?
[else][if NADEG3 eq <7>]
What degree are you working on at [NAS3NAME]?
[else][if NADEG1 eq <6>]
What degree are you working on at [NAS1NAME]?
[else][if NADEG2 eq <6>]
What degree are you working on at [NAS2NAME]?
[else][if NADEG3 eq <6>]
What degree are you working on at [NAS3NAME]?
[else][if NADEG1 eq <5>]
What degree are you working on at [NAS1NAME]?
[else][if NADEG2 eq <5>]
What degree are you working on at [NAS2NAME]?
[else][if NADEG3 eq <5>]
What degree are you working on at [NAS3NAME]?
[else]
What degree do you intend to pursue?

MASTER'S
1 = BUSINESS ADMIN (MBA)
2 = SCIENCE (MS)
3 = ARTS (MA)
4 = EDUCATION (M.ED)
5 = PUBLIC ADMIN (MPA)
6 = LIBRARY SCIENCE(MLS)
7 = PUBLIC HEALTH (MPH)
8 = FINE ARTS (MFA)
9 = APPLIED ARTS (MAA)
10= TEACHING (MAT)
11= DIVINITY (M.DIV)
12= SOCIAL WORK (MSW)
13= LANDSCAPE ARCHITECT
14= PROFESSIONAL MGMT
15= OTHER MASTERS

DOCTOR
16= PHILOSOPHY (PHD)
17= EDUCATION (ED.D)
18 = THEOLOGY (THD)
19 = BUSINESS ADMIN (DBA)
20 = ENGINEERING (D.ENG)
21 = FINE ARTS (DFA)
22 = PUBLIC ADMIN (DPA)
23 = SCIENCE (DSC/SCD)
24 = PSYCHOLOGY (PSYD)
25 = OTHER DOCTORAL DEGREE

FIRST-PROFESSIONAL
26 = CHIROPRACTIC (DC OR DCM)
27 = DENTISTRY (DDS OR DMD)
28 = MEDICINE (MD)
29 = OPTOMETRY (OD)
30 = OSTEOPATHIC MEDICINE (DO)
31 = PHARMACY (PHARM.D)
32 = PODIATRY (DPM OR POD. D)
33 = VETERINARY MEDICINE (DVM)
34 = LAW (LLB OR JD)
35 = THEOLOGY (M.DIV, MHL, BD)

Applies to: B&B respondents who plan to enroll or are enrolled in graduate school.

NEMJCOD
Post BA major-code
Applies to: B&B respondents who plan to enroll or are enrolled in graduate school.

NEGRDFT
[if NEEDPLN eq <2>]
Do you intend to be a full-time student the entire time while you're in graduate school?
[else]
Do you intend to be a full-time student at any time while you're in graduate school?
[endif]
1 = YES
2 = NO
Applies to: B&B respondents who plan to enroll or are enrolled in graduate school.

NENUMAPP

[if NADEGN gt <4> or NADEG1 gt <4> or NADEG2 gt <4>
or NADEG3 gt <4>]
How many graduate schools did you apply to?
[else]
How many schools have you applied to?
[endif]
RANGE (1-20):
Applies to: B&B respondents who plan to enroll in graduate school.

NES1UX

What school was your first choice?
1 = ENTER USEREXIT
2 = SKIP OVER USEREXIT
Applies to: B&B respondents who plan to enroll in graduate school.

NEGRRN1

Why did you decide to apply to graduate school?
COLLECT UP TO 3 RESPONSES
ENTER 0 FOR NO MORE
1 = REQUIRED FOR CAREER CHOICE
2 = QUALIFY FOR BETTER JOB
3 = UNDECIDED ABOUT CAREER
4 = NO JOB PROSPECTS
5 = ACADEMIC INTERESTS
6 = AVAILABILITY OF AID
7 = URGED BY PARENTS/GUARDIANS
8 = OTHER
Applies to: B&B respondents who plan to enroll in graduate school.

NEGRRN2

Reason for applying to grad school-2
See NEGRRN1 for description.
Applies to: B&B respondents who plan to enroll in graduate school.

NEGRRN3

Reason for applying to grad school-3
See NEGRRN1 for description.
Applies to: B&B respondents who plan to enroll in graduate school.

NENOGD1

Why did you choose not to apply to graduate school?
COLLECT UP TO 3 RESPONSES.ENTER 0 FOR NO MORE
1 = UNDERGRADUATE DEBT
2 = COULD NOT AFFORD TO GO/COULDN'T GET FINANCIAL AID
3 = NOT REQUIRED FOR CAREER GOALS
4 = GRADES NOT HIGH ENOUGH TO ENTER
5 = NO ACADEMIC INTEREST
6 = PERSONAL REASONS
7 = PLANS TO APPLY LATER
8 = NEEDS WORK EXPERIENCE FIRST
9 = HAS A GOOD JOB NOW
10 = OTHER
Applies to: B&B respondents who do not intend to apply to graduate school.

NENOGD2

Reason not applying to grad school-2
See NENOGD1 for description.
Applies to: B&B respondents who do not intend to apply to graduate school.

NENOGD3

Reason not applying to grad school-3
See NENOGD1 for description.
Applies to: B&B respondents who do not intend to apply to graduate school.

NECUR1

Would you consider your current job to be the start of your career in this occupation or industry?
1 = YES
2 = NO
[if NECUR1 eq <2> or NECUR1 eq <-1>]
How would you describe this job? Are you...
2 =Continuing in the job you held before you graduated?
3 =Working to prepare for graduate school?
4 =Working while deciding on your future education or career?
5 =Just paying the bills, or
6 =Is this the only job available?
7 =Other
Applies to: B&B respondents who have already graduated and are employed.

NECURJOB
See NECUR1 for description.
Applies to: B&B respondents who have already graduated and are employed, who reported that their current job is not the start of their career.

NEPGEMP
[if NACURENR eq <2>]
Do you have a job or a firm offer for a job, for after graduation?
[else]
Before you completed your undergraduate degree did you have a job, or a firm offer for a job, for after graduation?
[endif]
1 = YES
2 = NO
Applies to: B&B respondents, excluding those who reported that their current job is not the start of their career.

NEPGACPT
[If NACURENR eq <1>]
Do you plan to accept the offer?
[else][if (NACURENR eq <2> and NECURJOB gt <0> and NEPGEMP eq <1>)or (NACURENR eq <1> and NDSTLEMP eq <1>)]
Was that offer for the job you currently hold?
[else][if NACURENR eq <2>]
Have you accepted the offer?
1 = YES
2 = NO
Applies to: B&B respondents with job offer(s) for after graduation.

NEJOB1
Would you consider that job (the one you were offered) to be the start of your career in this occupation or industry?
1 = YES
2 = NO
[if NEJOB1 eq <2> or NEJOB1 eq <-1>]
How would you describe that job? Are you...
2 =Continuing in the job you held before you graduated?
3 =Working to prepare for graduate school?
4 =Working while deciding on your future education or career?
5 =Just paying the bills, or
6 =Is this the only job available?
7 =Other
Applies to: B&B respondents who are not currently working, but have a job offer for after graduation.

NEJOBDES
See NEJOB1 for description.
Applies to: B&B respondents who are not currently working, but have a job offer for after graduation, and who report that the job they were offered is not the beginning of a career.

NEJBSH
[if NACURENR eq <2>]
Are you currently looking for a job, for after graduation?
[else]
Are you currently looking for a job?
[endif]
1 = YES
2 = NO
Applies to: B&B respondents who do not have a job offer for after graduation.

NEXJ30CD
Post BA occupation-code
Applies to: B&B respondents who have a post-BA job/offer.

NEXINDCD
Post BA industry-code
Applies to: B&B respondents who have a post-BA job/offer, who provided a valid string for occupation title.

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NEFTPT

[if NEJBSH eq <1>]
Are you looking for full-time or part-time work?
[else][if NACURENR eq <2>]
After you graduate, do you plan to work full-time or part-time?
[else]
Are you working full-time or part-time?
1 = YES, FULL-TIME
2 = YES, PART-TIME
3 = NO
Applies to: B&B respondents who have or are seeking a post-BA job.

NEJBSH1

What are some of the things you've been doing to find a job?
CODE UP TO 4 RESPONSES -- ENTER 0 NO MORE
1 = UING SCHOOL'S PLACEMENT OFFICE (REFERRAL, POSTED JOB NOTICE)
2 = RESPONDING TO INTERNET/WWW JOB NOTICE -- ANY SOURCE
3 = RESPONDING TO NEWSPAPER/OTHER ADVERTISEMENT
4 = CONTACTING EMPLOYERS DIRECTLY (SENDING OUT RESUME OR APPLICATION)
5 = NETWORKING WITH FRIENDS, RELATIVES OR ACQUAINTANCES
6 = TALKING TO FACULTY/STAFF
7 = ATTENDING RECRUITING FAIRS, PROFESSIONAL MEETINGS
8 = VISITING UNEMPLOYMENT OFFICE (EMPLOYMENT COMMISSION POSTING/REFERRAL)
9 = CONTACTING EMPLOYMENT AGENCY/PROFESSIONAL RECRUITER
10 = VOLUNTEERING
11 = OTHER
Applies to: B&B respondents who have or are seeking a post-BA job.

NEJBSH2

Job search activities-2
See NEJBSH1 for description.
Applies to: B&B respondents who have or are seeking a post-BA job.

NEJBSH3

Job search activities-3
See NEJBSH1 for description.
Applies to: B&B respondents who have or are seeking a post-BA job.

NEJBSH4

Job search activities-4
See NEJBSH1 for description.
Applies to: B&B respondents who have or are seeking a post-BA job.

NETEACH

[if NEJBSH eq <2> or NEJBSH lt <0>]
Do you think you would ever consider teaching at the K-12 level?
[else]
Are you considering teaching at the K-12 level?
[endif]
1 = YES
2 = NO
Applies to: All B&B respondents, excluding those whose current occupation is teaching.

NEPREP1

What types of things have you already done to prepare yourself to teach?
COLLECT UP TO 4 RESPONSES.ENTER 0 FOR NO MORE
0 = NONE
1 = MAJORED IN EDUCATION/HAVE DEGREE
2 = APPLIED TEACHER'S EDUCATION PROGRAM
3 = ENTERED TEACHER'S EDUCATION PROGRAM
4 = TOOK NATIONAL TEACHERS' EXAM
5 = TOOK STATE TEACHING EXAM
6 = COMPLETING/COMPLETED STUDENT TEACHING
7 = TAKING/TOOK COURSES TOWARD TEACHER CERTIFICATION
8 = RELEVANT TEACHING EXPERIENCE: SUBSTITUTE/TEACHER'S ASSISTANT/SUNDAY SCHOOL
9 = EXPERIENCE WITH CHILDREN: CHILDCARE/MENTORING
10 = COMPLETED CERTIFICATIONS
11 = OTHER
Applies to: B&B respondents who would consider teaching.

NEPREP2
Teacher preparation activities-2
See NEPREP1 for description.
Applies to: B&B respondents who would consider teaching.

NEPREP3
Teacher preparation activities-3
See NEPREP1 for description.
Applies to: B&B respondents who would consider teaching.

NEPREP4
Teacher preparation activities-4
See NEPREP1 for description.
Applies to: B&B respondents who would consider teaching.

NEATHTY
1 = VERY IMPORTANT
3 = NOT IMPORTANT
2 = SOMEWHAT IMPORTANT
Please tell me if each of the following personal goals is
very important, somewhat important, or not important to you.
Becoming an authority in your field.......(neathty)
Influencing the political structure...........(neplinf)
Being very well-off financially...............(newloff)
Being successful in your line of work....(newkscs)
Being able to find steady work..............(nesteady)
Being a leader in the community............(neleadr)
Applies to: All B&B respondents.

NEPLINF
Importance-influence political structure
See NEATHTY for description.
Applies to: All B&B respondents.

NEWLOFF
Importance-being financially well-off
See NEATHTY for description.
Applies to: All B&B respondents.

NEWKSCS
Importance-being successful in work
See NEATHTY for description.
Applies to: All B&B respondents.

NESTEADY
Importance-steady work
See NEATHTY for description.
Applies to: All B&B respondents.

NELEADR
Importance of providing opportunity
See NEATHTY for description.
Applies to: All B&B respondents.

NECLSFAM
1 = VERY IMPORTANT
3 =NOT IMPORTANT
2 = SOMEWHAT IMPORTANT
Living close to parents/guardians and relatives...(neclsfam)
Getting away from the area where you grew up..(nearea)
Having leisure time to enjoy your interests..........(neleisur)
Having children...(nekids)
Being able to give your children better
opportunities than you had.................................(nebtropp)
Applies to: All B&B respondents.

NEAREA
Importance-getting away from area
See NECLSFAM for description.
Applies to: All B&B respondents.

NELEISUR
Importance-leisure time
See NECLSFAM for description.
Applies to: All B&B respondents.

NEKIDS
Importance-having kids
See NECLSFAM for description.
Applies to: All B&B respondents.

NEBTROPP
Importance of providing opportunity
See NECLSFAM for description.
Applies to: All B&B respondents.

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Section F: Disability

NFDISSEN

Before we end this interview, I'd like to ask you some questions that will help us better understand the educational services available for people with disabilities.

Do you have any of the following long-lasting conditions: blindness, deafness, or a severe vision or hearing impairment?

1 = YES
2 = NO

Applies to: All respondents.

NFDISMOB

Do you have a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?

1 = YES
2 = NO

Applies to: All respondents.

NFDISOTH

ENTER 1 = YES, 2 = NO

Do you have any other physical, mental, or emotional condition that has lasted 6 months or more?

1 = YES
2 = NO

NOTE:INCLUDE ANY INTERMITTENT CONDITION THAT HASLASTED AT LEAST 6 MONTHS OVERALL.

Applies to: All respondents.

NFDIFLRN

Because of that long-lasting condition, did you have any difficulty doing any of the following:

ENTER 1 = YES, 2 = NO

Learning, remembering, or concentrating?......................................(nediflrn)
Dressing, bathing, or getting around inside your home or dormitory?..................(nedifdrs)
Getting to school to attend class?........(nedifsch)
Getting around on campus?.................(nedifcam)
Working at a job?................................(nedifwrk)

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

NFDIFDRS

Difficulty dressing
See NFDIFLRN for description.

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

NFDIFSCH

Difficulty getting to school
See NFDIFLRN for description.

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

NFDIFCAM

Difficulty getting around on campus
See NFDIFLRN for description.

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

NFDIFWRK

Difficulty working at a job
See NFDIFLRN for description.

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

NFSLFDIS

Do you consider yourself to have a disability?

1 = YES
2 = NO

Applies to: All respondents.

NFANYDIS

A derived variable that indicates whether the respondent has reported any type of disability at all, based on responses to the first set of questions in the disability section. If respondent answered "YES" to either NFDISSEN, NFDISMOB, or NFDISOTH then NFANYDIS is set to 1. Values are:

<0> No
<1> Yes

Applies to: All respondents.

NFMAIN

What is the main condition that causes your activity limitation or difficulty?

1 = HEARING IMPAIRMENT (I.E., DEAF OR HARD OF HEARING).
2 = BLIND OR VISUAL IMPAIRMENT THAT CANNOT BE CORRECTED BY WEARING GLASSES
3 = SPEECH OR LANGUAGE IMPAIRMENT
4 = ORTHOPEDIC OR MOBILITY IMPAIRMENT
5 = SPECIFIC LEARNING DISABILITY/DYSLEXIA
6 = ATTENTION DEFICIT DISORDER (ADD)
7 = HEALTH IMPAIRMENT/PROBLEM
8 = MENTAL ILLNESS/EMOTIONAL DISTURBANCE/DEPRESSION
9 = DEVELOPMENTAL DISABILITY
10 = BRAIN INJURY
11 = OTHER

Applies to: Respondents who report some type of disability.

NFOTHR1

Do you have any other conditions, other than the one you've just told me about?

COLLECT UP TO THREE RESPONSES.ENTER 0 FOR NONE OR NO MORE.

1 = HEARING IMPAIRMENT (I.E., DEAF OR HARD OF HEARING).
2 = BLIND OR VISUAL IMPAIRMENT THAT CANNOT BE CORRECTED BY WEARING GLASSES
3 = SPEECH OR LANGUAGE IMPAIRMENT
4 = ORTHOPEDIC OR MOBILITY IMPAIRMENT
5 = SPECIFIC LEARNING DISABILITY/DYSLEXIA
6 = ATTENTION DEFICIT DISORDER (ADD)
7 = HEALTH IMPAIRMENT/PROBLEM
8 = MENTAL ILLNESS/EMOTIONAL DISTURBANCE/DEPRESSION
9 = DEVELOPMENTAL DISABILITY
10 = BRAIN INJURY
11 = OTHER

Applies to: Respondents who report some type of disability.

NFOTHR2

Any other conditions-2

See NFOTHR1 for description.

Applies to: Respondents who report some type of disability.

NFOTHR3

Any other conditions-3

See NFOTHR1 for description.

Applies to: Respondents who report some type of disability.

NFSERC1

What disability-related services or accommodations have you received to assist you with your schooling in the last
12 months?

COLLECT UP TO 4 RESPONSES.

ENTER 0 FOR NONE OR NO MORE

1 =ALTERNATIVE EXAM FORMATS OR ADDITIONAL TIME
2 =TUTORS TO ASSIST WITH ONGOING HOMEWORK
3 =READERS, CLASSROOM NOTETAKERS, OR SCRIBES
4 =REGISTRATION ASSISTANCE OR PRIORITY CLASS REGISTRATION
5 =SIGN LANGUAGE OR ORAL INTERPRETERS
6 =ADAPTIVE EQUIPMENT AND TECHNOLOGY (E.G., ASSISTIVE LISTENING DEVICES, TALKING COMPUTERS)
7 =COURSE SUBSTITUTION OR WAIVER
8 =OTHER

Applies to: Respondents who report some type of disability.

NFSERC2

Services received-2

See NFSERC1 for description.

Applies to: Respondents who report some type of disability.

NFSERC3

Services received-3

See NFSERC1 for description.

Applies to: Respondents who report some type of disability.

Section F: Disability

NFSERC4
Services received-4
See NFSERC1 for description.
Applies to: Respondents who report some type of disability.

NFNEES1
What disability-related services or accommodations do you need to assist you with your schooling that you haven't received?
COLLECT UP TO 4 RESPONSES.
ENTER 0 FOR NONE OR NO MORE
1 =ALTERNATIVE EXAM FORMATS OR ADDITIONAL TIME
2 =TUTORS TO ASSIST WITH ONGOING HOMEWORK
3 =READERS, CLASSROOM NOTETAKERS, OR SCRIBES
4 =REGISTRATION ASSISTANCE OR PRIORITY CLASS REGISTRATION
5 =SIGN LANGUAGE OR ORAL INTERPRETERS
6 =ADAPTIVE EQUIPMENT AND TECHNOLOGY (E.G., ASSISTIVE LISTENING DEVICES, TALKING COMPUTERS)
7 =COURSE SUBSTITUTION OR WAIVER
8 = OTHER
Applies to: Respondents who report some type of disability.

NFNEES2
Needed services-2
See NFNEES1 for description.
Applies to: Respondents who report some type of disability.

NFNEES3
Needed services-3
See NFNEES1 for description.
Applies to: Respondents who report some type of disability.

NFNEES4
Needed services-4
See NFNEES1 for description.
Applies to: Respondents who report some type of disability.

NFVOCREC
Have you ever received vocational rehabilitation services?
1 = YES
2 = NO
Applies to: All respondents.

NFVOCAPP
Have you ever applied for vocational rehabilitation services?
1 = YES
2 = NO
Applies to: All respondents.

NFSSI
Are you currently receiving Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI)?
0 = NO
1 =YES, SUPPLEMENTAL SECURITY INCOME (SSI)
3 =YES, SOCIAL SECURITY DISABILITY INSURANCE (SSDI)
4 =BOTH SSI AND SSDI
Applies to: All respondents.

Abbreviated Interview

>S_ELIG<

Were you enrolled at [Y_NPSCHL] **at any time** between July 1, 1999 and June 30, 2000?

IF NO, PROBE TO SEE IF RESPONDENT WAS ENROLLED AND LEFT.

BE ALERT FOR INDICATIONS THAT THE RESPONDENT IS STILL IN HIGH SCHOOL (ONLY TAKING ADVANCED PLACEMENT CLASSES, ETC. AT THE NPSAS SCHOOL) - IF SO, CODE 4 HERE.

1 = YES
2 = NO
3 = DROPPED OUT
4 = STILL IN HIGH SCHOOL
Applies to: All respondents

>S_DRPREF<

Did you receive a full refund of your tuition when you left?
1 = YES
2 = NO
Applies to: Respondents who dropped out of NPSAS school.

>S_DRPOK<

Because you left before completing the term, some questions may be awkward; but please answer the questions as best you can for the period when you were enrolled at [Y_NPSCHL]. Your answers will help to understand why people leave school.

Let's begin.
Applies to: Respondents who have left NPSAS school.

>S_DEGN<

What degree or certificate were you working on while you attended [Y_NPSCHL] during the 1999-2000 school year?

1 = CERTIFICATE
2 = ASSOCIATE'S DEGREE (AS, AA)
3 = BACHELOR'S DEGREE (BA, BS, BFA, etc.)
4 = UNDERGRAD SPECIAL STUDENT (NON-DEGREE/NON-MATRICULATED)
5 = POST-BACCALAUREATE CERTIFICATE
6 = MASTER'S DEGREE (MA, MS, MBA, MFA, MDIV, etc.)
7 = DOCTORAL OR FIRST-PROFESSIONAL DEGREE (PHD, EDD, JD, MD, DDS, etc.)
8 = GRADUATE SPECIAL STUDENT (NON-DEGREE/NON-MATRICULATED)
Applies to: All respondents.

>S_ELCRD<

Were you enrolled in a course for credit that **could be** transferred to another school?
1 = YES
2 = NO
Applies to: Respondents not enrolled in a certificate or degree program.

>S_BYE<

Based on what you've told me, it seems you may not be
eligible for this study. After checking with my supervisor,
I may need to call you back.

Applies to: Respondents who may not be eligible for the study.

>S_CMPDGN<

Have you completed all the requirements for your [S_DEGfil]?
1 = YES
2 = NO
Applies to: All respondents enrolled in a degree or certificate program.

>S_EXPN<

When do you expect to complete the requirements for your
degree?
[else]
certificate?
F5 = RESPONDENT DOES NOT INTEND TO COMPLETE DEGREE
MONTH (1-12) :
YEAR (2000-2010) :
Applies to: Respondents who have not completed degree at NPSAS.

>S_DGN<

When did you complete your degree?
MONTH (1-12) :
YEAR (1999-2000) :

NOTE: IF RESPONDENT DOES NOT REMEMBER THE DATE, PROBE TO FIND OUT IF DEGREE WAS COMPLETED AFTER JULY 1, 1999 AND BEFORE JUNE 30, 2000.
Applies to: Respondents who have completed degree at NPSAS.

>S_S1UXCL<

Where else did you attend (during the 99-2000 school year)?

0 = NO OTHER SCHOOLS
[if S_s1uxst eq <1>]
1 = RE-ENTER USEREXIT
2 = SKIP OVER USEREXIT

Applies to: Respondents enrolled in other school 1 in the NPSAS year.

>S_ENRD1<

Were you taking courses leading to a degree or certificate to be awarded by [S_S1name]?
1 = YES
2 = NO

Applies to: Respondents enrolled in other school 1 in the NPSAS year.

>S_CMPDG1<

Have you completed all the requirements for your bachelor's degree?
1 = YES
2 = NO

Applies to: Respondents working on bachelor's degree at other school 1 during the NPSAS year.

>S_EXP1<

When do you expect to complete the requirements for your degree?

F5 = RESPONDENT DOES NOT INTEND TO COMPLETE DEGREE

MONTH (1-12) :
YEAR (2000-2010) :

Applies to: Respondents who have not completed a bachelor's degree at other school 1.

>S_DG1<

When did you complete your degree?
MONTH (1-12) :
YEAR (1999-2000) :

Applies to: Respondents who have completed a bachelor's degree at other school 1.

>S_ENROLL<

I need to ask you some questions about the dates of your enrollment during the 1999-2000 school year.
INTERVIEWER: PLEASE ENTER THE RESPONSES IN THE USER EXIT.

[1 = ENTER THE USEREXIT
[else]
1 = RE-ENTER THE USEREXIT
2 = SKIP OVER THE USEREXIT

Applies to: All respondents.

>S_UGYR<

Now, I'd like you to focus on your undergraduate enrollment at [S_TARGET] during the 99-2000 school year.

What was your year or level during your last term at

[S_TARGET] in the 99-2000 school year?
0 = UNCLASSIFIED UNDERGRADUATE
1 = FIRST YEAR/FRESHMAN
2 = SECOND YEAR/SOPHOMORE
3 = THIRD YEAR/JUNIOR
4 = FOURTH YEAR/SENIOR
5 = FIFTH YEAR OR HIGHER UNDERGRADUATE
6 = GRADUATE STUDENT TAKING UNDERGRADUATE COURSES

Applies to: All undergraduate respondents.

>S_GRTYP<

I'd like you to focus on your enrollment at [S_TARGET] during the 99-2000 school year.

What specific degree were you working toward in your last term in the 99-2000 school year?

[else]

What specific degree were you working toward in your last term

at [S_TARGET]

the 99-2000 school year?

MASTER'S

1= BUSINESS ADMIN (MBA)
2= SCIENCE (MS)
3= ARTS (MA)
4= EDUCATION (M.ED) DOCTORAL
5= PUBLIC ADMIN (MPA)
6= LIBRARY SCIENCE(MLS)
7= PUBLIC HEALTH (MPH)
8= FINE ARTS (MFA)
9= APPLIED ARTS (MAA)
10= TEACHING (MAT)
12= SOCIAL WORK (MSW)
13= LANDSCAPE ARCHITECT
14= PROFESSIONAL MGMT
15= OTHER MASTERS
FIRST PROFESSIONAL

DOCTORAL

16= PHILOSOPHY (PHD)
17= EDUCATION (ED.D)
18= THEOLOGY (THD)
19= BUSINESS ADMIN (DBA)
20= ENGINEERING (D.ENG)
21= FINE ARTS (DFA)
22= PUBLIC ADMIN (DPA
23= SCIENCE (DSC/SCD)
24=PSYCHOLOGY (PSYD)
25= OTHER DOCTORAL DEGREE
26= CHIROPRACTIC (DC OR DCM)
27= DENTISTRY (DDS OR DMD)
28= MEDICINE (MD)
29= OPTOMETRY (OD)
30= OSTEOPATHIC MEDICINE (DO)
31= PHARMACY (PHARM.D)
32= PODIATRY (DPM OR POD. D)
33= VETERINARY MEDICINE (DVM)
34= LAW (LLB OR JD)
35= THEOLOGY (M.DIV, D.MIN)

Applies to: Graduate/first-professional students who are working on a master's, doctoral, or professional degree.

>S_GRYR<

What year of your graduate program were you in during your last term at [S_TARGET] in the 99-2000 school year?

1 = FIRST YEAR
2 = SECOND YEAR
3 = THIRD YEAR
4 = FOURTH YEAR OR HIGHER

Applies to: Graduate/first-professional students who are working on a degree or baccalaureate certificate.

>S_DOB<

What is your date of birth?

MONTH (1-12)
DAY (1-31)
YEAR (1920-1989)

Applies to: Respondents for whom preloaded DOB was either missing or incorrect.

>S_MARR<

Are you currently...

IF RESPONSE IS "SINGLE," PROBE TO DETERMINE IF RESPONDENT WAS EVER MARRIED.

1 = Single, never married
2 = Married
3 = Separated
4 = Divorced
5 = Widowed

Applies to: All respondents.

>S_CITZN<

Are you a U. S. citizen?

1 = YES - US CITIZEN OR US NATIONAL
2 = NO - RESIDENT ALIEN - PERMANENT RESIDENT OR OTHER ELIGIBLE NON-CITIZEN TEMPORARY RESIDENT'S CARD
3 = NO - STUDENT VISA - IN THE COUNTRY ON AN F1 OR F2 VISA OR ON A J1 OR J2 EXCHANGE VISITOR VISA

Applies to: All respondents.

>S_HISP<

Are you of Hispanic or Latino origin?

1 = YES
2 = NO

Applies to: All respondents.

>S_RAC<

What is your race?

BE SURE TO RECORD FIRST RESPONSE FIRST

ENTER 0 WHEN DONE

1 = WHITE
2 = BLACK OR AFRICAN AMERICAN
3 = ASIAN
4 = AMERICAN INDIAN OR ALASKA NATIVE
5 = NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER
6 = OTHER, SPECIFY

Applies to: All respondents.

>S_RACSP<

SPECIFY OTHER RACE.

Applies to: Respondents who report more than other race.

>S_DEPS<

My next few questions are about your family.

When you were enrolled in the 1999-2000 school year, did you have any children that you [If S_MARR eq <2>] and your spouse [If S_MARR eq <2>] supported financially?

1 = YES
2 = NO

Applies to: All respondents.

>S_DAGE<
How many of your children are...
Under 5? (0-9) @dage1
Aged 5 to 12? (0-9) @dage2
Aged 13 to 16? (0-9) @dage3
Over 16? (0-9) @dage4
Applies to: Respondents with dependent children.

>S_MILIT<

Are you a veteran of the US Armed Forces, or are you currently serving in the Armed Forces, either on active duty or in the reserves?

0 = NO
1 = VETERAN
3 = ACTIVE DUTY
4 = RESERVES
Applies to: Respondents who are US citizens.

>S_OTAIDN<
Did you receive any financial aid during the 99-2000 school year that did not come from the financial aid office at [Y_NPSCHL],
such as tuition paid by your employer, private loans or scholarships, or veteran's benefits?
Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: All respondents

>S_AIDSCN<

Did you receive...
ENTER 1=YES 2=NO AMOUNT RECEIVED

Employer Assistance? @adnemp
Range ($1-$100,000) @amnemp

A personal loan from a bank or private organization?
@adncom Range ($1-$150,000) @amncom

Veteran's benefits? @adnvet Range ($1-$25,000)
@amnvet

[if S_CITZN eq <2> or S_CITZN eq <3>]
Aid from a foreign government? \
[endif]
@adnfor Range ($1-$150,000) @amfor

Grants/Scholarships from a private organization? @adnprv Range ($1-$30,000)
@ammprv

Aid from some other source (excluding family and friends)? @adnoth Range ($1-$75,000)
@amnoth

Applies to: Respondents who received other financial aid during 99-2000 school year.

>S_UGLN<
The next questions are about how you paid for your education after graduating from high school.

Other than any money you may have borrowed from family or friends, how much \
[if S_CATIST eq <1>]
have you
already borrowed in student loans for your undergraduate education?
[else]
did you
borrow in student loans for your undergraduate education?
[endif]
AMOUNT (RANGE: $0 - $150,000):
Applies to: All respondents.

>S_FEDUGL<

How much of \
[if S_UGLN gt <0>]
the $[S_UGLN] \
[else]
that amount \
[endif]
is in federal student loans?

ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Respondents with undergraduate loans.

>S_FEDUGO<

How much of \
[if S_FEDUGL gt <0>]
the $[S_FEDUGL]
[else]
that amount do you still owe?
ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Respondents with Federal undergraduate loans.

>S_GRLN<

Other than any money you may have borrowed from family or friends, how much have you already borrowed in student loans for your graduate education?

AMOUNT (RANGE: $0 - $150,000):
Applies to: Graduate/first-professional students.

>S_FEDGRL<

How much of \
[if S_GRLN gt <0>]
the $[fill S_GRLN] \
[else]
that amount \
[endif]
is in federal student loans?

ENTER F5 FOR ALL OF IT

AMOUNT (RANGE: $0 - 150,000)

>S_FEDGRO<

How much of \
[if S_FEDGRL gt <0>]
the $[S_FEDGRL]
[else]
that amount
[endif]
do you still owe?

ENTER F5 FOR ALL OF IT
AMOUNT (RANGE: $0 - $150,000):
Applies to: Graduate/first-professional students with graduate loans.

>S_LONCHK<
Based on what you've told me, you borrowed more in student loans for the 99-2000 school year than the total amount of loans you reported borrowing since high school. Here's what I have:
INTERVIEWER: PLEASE VERIFY AMOUNTS AND CORRECT IF NECESSARY.

	AMOUNT
TOTAL BORROWED FOR UNDERGRADUATE EDUCATION	$@lonug
TOTAL BORROWED FOR GRADUATE EDUCATION	$@longr
TOTAL BORROWED DURING 1999-2000 AT EACH SCHOOL	
[Y_NPSCHL:b]	$@loann

Applies to: Respondents who have borrowed more in student loans for 99-2000 than they have borrowed in total since high school.

>S_SCHRES<

When you last attended **|S_TARGET|** during the **99-2000** school year, did you live...

IF MORE THAN ONE RESIDENCE, GIVE THE PLACE LIVED THE LONGEST

1 = On-campus in school-owned housing,
2 = Off-campus in school-owned housing,
3 = In a fraternity or sorority house,
4 = In an apartment or house other than with parents or guardians,
5 = With your parents or guardians,
6 = With other relatives, or
7 = Some place else?
Applies to: All respondents.

>S_PARTUI<
Did anyone, such as your parents or guardians, pay your tuition and fees on your behalf for the 99-2000 school year?
0 = NONE
1 = YES - SOME OF IT
3 = YES - ALL OF IT
Applies to: Respondents under age 30.

>S_SCHSUP<
Did anyone give you money for school-related expenses for the **1999-2000** school year? Please do not include money given for tuition.
1 = YES
2 = NO
Applies to: Respondents under age 30.

>S_SUPAMT<

How much (were you given for school-related expenses other than tuition)?
Range ($1-100,000):
Applies to: Respondents under age 30.

>S_COSTS<

During the **99-2000** school year, about how much did you spend on...
Books and supplies for classes?
RANGE ($0 - $5,000) @cstbks

Special equipment, such as computers, microscopes, and tools?

RANGE ($0 - $15,000): @cmptr
Applies to: All respondents.

>S_NUMJOB<

My next questions have to do with jobs you've held while you were enrolled at [S_TARGET] during the 99-2000 school year.
[if Y_WORKST eq <1>]
Including any work study jobs you may have, how many jobs for pay did you have during the 1999-2000 school year?
[else][if Y_ASSIST eq <1>]
Including any assistantships you may have, how many jobs for pay did you have during the 1999-2000 school year?
[else]
How many jobs for pay did you have during the 1999-2000 school year?
[endif]
VERIFY NUMBER OF JOBS OVER 4.
COUNT ONLY UNIQUE JOBS.
RANGE (0-9):
Applies to: All respondents.

>S_HOURS<
During the 99-2000 school year, how many hours did you work per week while you were enrolled?

PLEASE EXCLUDE SUMMER HOURS IF NOT ENROLLED DURING THE SUMMER.

RANGE (0-99):

Applies to: Respondents who worked while enrolled.

>S_ENRWRK<

While you were enrolled and working, would you say you were primarily...

1 = A student working to meet expenses or
2 = An employee who decided to enroll in school?
Applies to: Respondents who worked while enrolled.

>S_COOP<

During the 99-2000 school year, did you participate in a **paid** internship, apprenticeship, work study, cooperative education program, or assistantship?

COLLECT UP TO 3. ENTER 0 FOR NONE.
1 = INTERNSHIP
2 = APPRENTICESHIP
3 = WORK STUDY
4 = COOPERATIVE EDUCATION
5 = ASSISTANTSHIP
Applies to: Respondents who worked while enrolled, excluding graduate students who have already reported having an assistantship.

>S_EARN<
How much did you earn from \
[if S_NUMJOB <1> or S_NUMJOB lt <0>]
the job
[else]
[if S_NUMJOB gt <1>]
all jobs
[endif]
you held while you were enrolled
for the 99-2000 school year?
EXCLUDE SUMMER EARNINGS IF NOT ENROLLED
DURING THE SUMMER
RANGE ($10.00 - $100,000): @earn
Was that $[@earn] for the entire school year?
1 = ENTIRE YEAR
2 = PER TERM/SEMESTER
3 = PER MONTH
4 = PER WEEK
Applies to: Respondents who worked while enrolled.

>S_EARNS<
How many \
[if S_EARN eq <1> or S_EARN eq <2>]
terms \
[else][if S_EARN eq <3>]
months \
[else][if S_EARN eq <4>]
weeks \
[endif]
did you work
during the 99-2000 school year?
RANGE (1-[S_I_EARN]):
Applies to: Respondents who worked while enrolled, who reported earnings in a unit of time other than a year.

>S_WKSWK<
Would you say you worked during all the weeks you were enrolled, most of them, half of them, or less than half?
1 = ALL
2 = MOST
3 = HALF
4 = LESS THAN HALF
Applies to: Respondents who worked while enrolled.

>S_OCCENR<

[If S_NUMJOB gt <1> and S_COOP gt <0>]
Since you had [S_1_COOP]
while enrolled, please focus on that job
as you answer my questions.
What was your job title?
[else]
[if S_NUMJOB gt <1> and S_COOP le <0>]
Since you had more than one job during
the year, I'd like you to focus on the
job you held while enrolled.
IF ALL JOBS HELD WHILE ENROLLED, FOCUS ON THE JOB WORKED GREATEST NUMBER OF HOURS EACH WEEK

What was your job title?
[else]
What was your job title in the job
you had while enrolled?
[endif]
@occ
What did you do?
@occenr
Applies to: Respondents who worked while enrolled.

>S_INC99<

Now I'd like to ask you a few questions about your income in calendar year 1999. (Your 1999 calendar year income includes money earned both while you were enrolled in school and while you were not enrolled or on break.)

How much did you earn from work in 1999?
RANGE ($0 - $3,000,000):
Applies to: All respondents.

>S_INC99V<

Let me make sure I entered that correctly.
Your income for 1999 was: $[S_INC99]?
1 = YES
2 = NO
Applies to: Aid non-applicants who report a 1999 income greater than 1,000,000.

>S_INC98E<

Was the amount you earned in 1998 about
the same as you earned in 1999?
1 = YES
2 = NO
Applies to: Aid non-applicants.

>S_INC98<

How much did you earn from
work in 1998?
RANGE ($0 - $3,000,000):
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

>S_INC98V<

Let me verify that amount.
Your income for 1998 was: $[S_INC98].
Is that correct?
1 = YES
2 = NO
Applies to: Aid non-applicants who report a 1998 income greater than 1,000,000.

>S_INCS99<

How much would you estimate your
spouse earned from work in 1999?
RANGE ($0 - $3,000,000):
Applies to: Married aid non-applicants.

>S_INS99V<

Let me make sure I entered that correctly.
Your spouse's income for 1999 was: $[S_INCS99]?
1 = YES
2 = NO
Applies to: Married aid non-applicants who report spouse's 1998 income greater than 1,000,000.

>S_INS98E<

Was the amount your spouse earned in 1998
about the same as he/she earned in 1999?
1 = YES
2 = NO
Applies to: Married aid non-applicants.

>S_INCS98<

How much did your spouse
earn from work in 1998?
RANGE ($0 - $3,000,000):
Applies to: Married aid non-applicants whose spouse's earnings were not the same in 1998 as in 1999.

>S_INS98V<

Let me verify that amount.
Your spouse's income for 1998 was: $[S_INCS98].
Is that correct?
1 = YES
2 = NO
Applies to: Married aid non-applicants who report spouse's 1998 income greater than 1,000,000.

>S_OINC99<

[if S_I_IN99 gt <0>]
Including the $[S_I_IN99:,] that you \
Including the income that you \
[else]
What was the total income that you\
[endif]
[if S_MARR eq <2>]
and your spouse
[else]
[endif]
[if S_I_IN99 gt <0>]
earned from work, what was your total income
[else]
from all sources, prior to taxes and deductions, for 1999?

Please exclude any student financial aid, scholarships, or grants you may have received for the year.

NOTE: IF R IS UNSURE, PROBE FOR AMOUNT TO THE NEAREST THOUSAND
F5 = SAME AS AMOUNT EARNED FROM WORK
RANGE ($0 - $3,000,000):
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

>S_OIN98E<

Was the amount you earned in 1998 (from sources of income
other than your salary\
[if S_MARR eq <2>]
and your spouse's salary)
about the same as you earned in 1999?
[else]
about the same as you earned in 1999?
[endif]
1 = YES
2 = NO
Applies to: Aid non-applicants.

>S_OINC98<

Including the $[fill S_I_IN98] that you \
[else]
Including the income that you \
[endif]
[if S_MARR eq <2>]
and your spouse
[else]
[endif]
[if S_I_IN98 gt <0>]
earned from work,
[else]
earned,
[endif]
what was your total income from all sources, prior to
taxes and deductions, for 1998?
Please exclude any student financial aid, scholarships, or grants you may have received for the year.

NOTE: IF R IS UNSURE, PROBE FOR AMOUNT TO THE NEAREST THOUSAND
F5 = SAME AS AMOUNT EARNED FROM WORK
RANGE ($0 - $3,000,000):
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

>S_UNTAX<

Since July 1, 1999, did you \
[if S_MARR eq <2>]
or your spouse
[else]
receive any untaxed income or benefits, such as TANF (AFDC), Social Security, worker's compensation, disability payments, or child support?
1 = YES
2 = NO
Applies to: All respondents

>S_WLFAR<

ENTER 1 = YES, 2 = NO
SINCE JULY 1, 1999
Did you receive...
TANF (AFDC)..............................@tanf
Social Security benefits?................@socsec
Workers compensation?....................@wrkcmp
Disability payments?.....................@disab
[if S_DEPS eq <1>]
Child support?...........................@child[endif]
Food stamps?.............................@stmps
Applies to: Respondents who received untaxed benefits.

>S_EDPLN<

What are your plans for school this year
(the 2000-2001 school year)?
Are you...
1 = Not enrolled,
2 = Enrolled full-time, or
3 = Enrolled part-time?

Applies to: All respondents.

>S_WKPLN<

[If S_EDPLN gt <1>]
While you are enrolled during the 2000-2001 school year,
are you...
[else]
that are your plans for work this year (in 2000-2001)?
Are you...

1 = Not working,
2 = Working full-time, or
3 = Working part-time?

Applies to: All respondents.

>S_DISSEN<

Before we end this interview, I'd like to ask you some questions that will help us better understand the educational services available for people with disabilities.

Do you have any of the following long-lasting conditions: blindness, deafness, or a severe vision or hearing impairment?
1 = YES
2 = NO

Applies to: All respondents.

>S_DISMOB<

Do you have a condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?
1 = YES
2 = NO

Applies to: All respondents.

>S_DISOTH<

ENTER 1 = YES, 2 = NO
Do you have any other physical, mental, or emotional condition that has lasted 6 months or more?
1 = YES
2 = NO
NOTE: INCLUDE ANY INTERMITTENT CONDITION THAT HAS LASTED AT LEAST 6 MONTHS OVERALL.

Applies to: All respondents.

>S_DIFFIC<

Because of that long-lasting condition, did you have any difficulty doing any of the following:
ENTER 1 = YES, 2 = NO
Learning, remembering, or
concentrating?.......@diflrn
Dressing, bathing, or getting around inside your
home or dormitory?.........................@difdrs
Getting to school to attend class?...............@difsch
Getting around on campus?........................@difcam
Working at a job?................................@difwrk

Applies to: Respondents who have reported having a long-lasting physical, mental, or emotional condition.

>S_END<

Reliability Reinterview

>R_INTRO1<

Hello, my name is __________, and I'm calling from the Research Triangle Institute for the U.S. Department of Education.
Recently, when you completed a telephone interview as part of the National Postsecondary Student Aid Study, you agreed to participate in a brief reinterview. I'd like to conduct the 5 to 10 minute reinterview now. You can stop at any time.

Let's begin. . . .

I'd like to ask you some questions about your experiences while you were enrolled at [A_TARGET].
Applies to: All respondents.

>R_DEPS<

Do you have any children that you
[if B_MARR eq <2>]
and your spouse \
[endif]
[if B_MARR eq <2>]
support financially?
[else]
support financially?
1 = YES
2 = NO
Applies to: All respondents.

>R_DAGE<

How many of your children are...
Under 5? (0-9)
Aged 5 to 12? (0-9)
Aged 13 to 16? (0-9)
Over 16? (0-9)
Applies to: Respondents with dependent children.

>R_DAYCR<

While you're at school, who (primarily) takes care of your children?
1 = CHILD'S OTHER PARENT
2 = OTHER RELATIVE/FAMILY MEMBER
3 = FRIEND/NEIGHBOR
4 = CAMPUS DAYCARE CENTER
5 = DAYCARE CENTER
6 = CHILD(REN) IN SCHOOL WHILE RESPONDENT IS ATTENDING CLASSES
Applies to: Respondents with dependent children under age 12.

>R_DAYCST<

On average, how much did you pay each month for childcare during the last term you were enrolled in the 99-2000 school year?
RANGE ($0 - $1000):
Applies to: Respondents with dependent children under age 12.

>R_OTAIDN<

Did you receive any financial aid during the 99-2000 school year that did not come from the financial aid office at [Y_NPSCHL], such as tuition paid by your employer, private loans or scholarships, or veteran's benefits?

Please exclude any money that came from your family.
1 = YES
2 = NO
Applies to: All respondents.

>R_AIDSCN<

Did you receive...
ENTER 1=YES 2=NO AMOUNT RECEIVED

Employer Assistance?... @adnemp Range ($1-$100,000): @amnemp

A personal loan from a bank or private organization?... @adncom Range ($1-$150,000): @amncom

Veteran's benefits?... @adnvet Range ($1-$25,000): @amnvet

[If B_CITZN eq 2,3]
Aid from a foreign government?...@adnfor Range ($1-$150,000): @amnfor

Grants/Scholarships from a private organization?... @adnprv Range ($1-$30,000): @amnprv

Aid from some other source (excluding family and friends)?... @adnoth Range ($1-$75,000): @amnoth
Applies to: Respondents who received other financial aid during 99-2000 school year.

>R_FAMN99<

How much did you borrow from family and friends to attend [Y_NPSCHL] for the 99-2000 school year?
RANGE: ($0 - $100,000):
Applies to: All respondents.

>R_PARTUI<

Did anyone, such as \
[if B_GRDTYP eq <3> and (B_CARE eq <2> or B_CARE eq <>)]
your guardians
[else]
[if (B_GRDTYP eq <1> or B_GRDTYP eq <2>) and B_CARE eq <2> or B_CARE eq <>)]
your guardian,
[else]
[if (B_DCSD eq <1> or B_DCSD eq <2>) and B_GUARD eq <2>]
your parent,
[else]
your parents pay your tuition and fees on your
behalf for the 99-2000 school year?
0 = NONE
1 = YES - SOME OF IT
3 = YES - ALL OF IT

Applies to: Respondents under age 30.

>R_SCHSUP<

Did anyone give you money for school-related expenses for the **1999-2000** school year? Please do not include money given for tuition.
1 = YES
2 = NO

Applies to: Respondents under age 30.

>R_SUPAMT<

How much (were you given for school-related expenses other than tuition)?
Range ($1-100,000):

Applies to: Respondents under age 30.

>R_LICENS<

For some jobs, licensing or certification is required. How many licenses do you hold?
RANGE (0-4):

Applies to: All respondents

>R_LIC<

Which license(s) or certificate(s) do you hold?
COLLECT UP TO 3 (ENTER 0 FOR NO MORE.)

1 = AUTOMOTIVE/ MECHANIC REPAIR
2 = BUSINESS (BROKER, CPA, REALTOR)
3 = CHILD CARE/DAY CARE/TEACHER AIDE
4 = COMMERCIAL OPERATOR/TRANSPORT
5 = COMMUNICATIONS/ BROADCAST (FCC)
6 = CMPTR/ELECTRONIC/ TV/VCR REPAIR
7 = CMPTR PROGRAMMER/ SYSTEMS TECH
8 = COSMETOLOGY/ BEAUTICIAN/BARBER
9 = COUNSELOR/ PSYCHOLOGIST
10 = CRAFTS (ELECTRICIAN/ CRPNTR/MASON)
11 = EDUCATOR (TEACHER, PRINCIPAL)
12 = FOOD SERVICES
13 = INSURANCE/ UNDERWRITING
14 = LAW OR LEGAL (NOT PARALEGAL)
15 = LEGAL ASSISTANT/ PARALEGAL
16 = MEDICAL (PHYSICIAN)
17 = MED/DENTAL TECH. OR THERAPIST
18 = VENDOR SPECIFIC
19 = NURSE AIDE/ HOME HEALTH AIDE
20 = NURSING (RN, LPN)
21 = PERSONAL SVCS (MASSAGE THERAPY)
22 = PHARMACY
23 = PROF ENGINEERING/ ARCHITECTURE
24 = OTHER LICENSE OR CERTIFICATE CERTIFICATION (MCSE/NOVELL)

Applies to: Respondents who hold licenses.

>R_INC99<

Now I'd like to ask you a few questions about your income in calendar year 1999. (Your 1999 calendar year income includes money earned both while you were enrolled in school and while you were not enrolled or on break.)
How much did you earn from work in 1999?
RANGE ($0 - $3,000,000):

Applies to: All respondents.

>R_INC98E<

Was the amount you earned in 1998 about the same as you earned in 1999?
1 = YES
2 = NO

Applies to: Aid non-applicants

R_INC98<

How much did you earn from work in 1998?
RANGE ($0 - $3,000,000):

Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

>R_INCS99<

How much would you estimate your
spouse earned from work in 1999?
RANGE ($0 - $3,000,000):
Applies to: Married aid non-applicants.

>R_INS98E<

Was the amount your spouse earned in 1998
about the same as \
[if B_GENDR eq <2>]
he \
[else][if B_GENDR eq <1>]
she \
[endif]
earned in 1999?
1 = YES
2 = NO
Applies to: Married aid non-applicants.

>R_INCS98<
How much did your spouse
earn from work in 1998?
RANGE ($0 - $3,000,000):
Applies to: Married aid non-applicants whose spouse's earnings were not the same in 1998 as in 1999.

>R_OINC99<

[if R_1_IN99 gt <0>]
Including the $[R_1_IN99] that you \
[else]
Including the income that you \
[endif]
[if B_MARR eq <2>]
and your spouse
[else]
[endif]
have earned from work, what was your total
income from all sources, prior to taxes and
deductions, for 1999?
Please exclude any student financial aid you
may
have received for the year.

F5 = SAME AS AMOUNT EARNED FROM WORK
RANGE ($0 - $3,000,000):
Applies to: All respondents who provided valid work-income values.

>R_OIN98E<

Was the amount you earned in 1998 (from
sources of income other than your salary \
[if B_MARR eq <2>]
and your spouse's salary)about the same as
you earned in 1999?
[else]
about the same as you earned in 1999?
[endif]
1 = YES
2 = NO

Applies to: Aid non-applicants.

>R_OINC98<

[if R_1_IN98 gt <0>]
Including the $[R_1_IN98] that you \
[else]
Including the income that you \
[endif]
[if B_MARR eq <2>]
and your spouse
[else]
[if R_1_IN98 gt <0>]
earned from work,
[else]
earned,
[endif]
what was your total income
from all sources, prior to taxes and deductions,
for 1998?
Please exclude any student financial aid you
may
have received for the year.
F5 = SAME AS AMOUNT EARNED FROM WORK
RANGE ($0 - $3,000,000):
Applies to: Aid non-applicants whose 1998 earnings were not the same as 1999.

>R_PARINC<

What would you estimate \
[if B_GRDTYP eq <3> and
(B_CARE eq <2> or B_CARE eq <>)]
your guardians'
[else][if (B_GRDTYP eq <1> or
B_GRDTYP eq <2>) and
(B_CARE eq <2> or B_CARE eq <>)]
your guardian's
[else][if (B_DCSD eq <1> or
B_DCSD eq <2>) and B_GUARD eq <2>]
your parent's
[else]
your parents' income in was in 1999?

Was it....
1 = Up to $30,000,
2 = $30,001 to $60,000
3 = $60,001 to $90,000, or
4 = Over $90,000?
Applies to: Aid non-applicants under 25.

>R_UGEXP<

Please tell me how frequently you did each of the following as an undergraduate. Was it never, sometimes, or often?
0 = NEVER 1 = SOMETIMES 2 = OFTEN

How frequently did you use e-mail to communicate with students or faculty about course-related matters?...

Search the Internet for information for homework or research?...

Participate in electronic chat rooms for class discussion
Or homework?...

Use spreadsheet software like Lotus or Excel?...
Program in languages like C++, JAVA, SPSS, HTML?...

Use word-processing software (Word, WordPerfect) to write
papers for courses?...
Applies to: B&B eligible respondents.

>R_NUMCRD<

How many credit cards do you have in your own name, that are billed to you?
0 = NONE
1 = 1 OR 2
2 = 3 OR MORE
Applies to: All respondents.

>R_CRDTUI<

Did you use your credit card(s) to pay your 99-2000 tuition?
1 = YES
2 = NO
Applies to: Respondents with credit cards.

>R_PAYOFF<

Do you usually pay off your credit card balances each month, or carry balances over from month to month?

1 = PAYOFF BALANCES
2 = CARRY BALANCES
Applies to: Respondents with credit cards.

>R_CRDPAR<
[if R_1_FIL eq <1>]
Did your \
[else][if R_1_FIL eq <2>]
Does your \
[else]
Do your \
[endif]
[endif]
[if B_GRDTYP eq <3> and (B_CARE eq <2> or B_CARE eq <>)]
guardians \
[else][if (B_GRDTYP eq <1> or
B_GRDTYP eq <2>) and
(B_CARE eq <2> or B_CARE eq <>)]
guardian \
[else][if (B_DCSD eq <1> or B_DCSD eq <2>) and B_GUARD eq <2>]
parent \
[else]
parents \
help you pay your credit card bills?
1 = YES
2 = NO
Applies to: Respondents under 25 with credit cards.

>R_END<

Appendix G
NPSAS Sampling Details

Appendix G
NPSAS Sampling Details

I. Target Population

The target population for NPSAS:2000 consists of all students enrolled in Title IV participating postsecondary institutions other than U.S. Service Academies in the United States or Puerto Rico at any time during the 1999-2000 federal financial aid award year, excluding students who were enrolled solely in a GED program or who were concurrently enrolled in high school. With one exception, the survey population also was defined as those students who were enrolled at any time between July 1, 1999 and June 30, 2000. Specifically, if a term or course began after May 31, 2000 and ended after June 30, 2000, then students enrolled only in that term or course were excluded from the survey population. The target population is the population about which inferences will be made. The survey population is the population actually covered by the sampling frame. Nearly all members of the target population also are members of the survey population; however, the adopted definition of the survey population allowed the student lists needed for sample selection to be obtained before or during June for many institutions (e.g., those on a semester calendar system). More specific definitions of the institution and student populations are provided later in this appendix.

This definition of the survey population differs from previous NPSAS rounds but is more consistent with the definition of the target population. Prior NPSAS rounds also surveyed students enrolled at institutions not participating in Title IV aid programs. In addition, for NPSAS:96 and NPSAS:93, the survey population was defined as those students who were enrolled in any term beginning between May 1 and April 30 during the survey year, i.e., 1995-96 and 1992-93, respectively; for NPSAS:90, the students sampled were those enrolled on August 1, 1989, October 15, 1989, February 15, 1990, or June 15, 1990 (however, the June 15 enrollees were not sampled for 4-year institutions because of budgetary limitations); for NPSAS:87, only Fall 1986 enrollees were sampled.

II. Sample Design Overview

A schematic overview of the sequential statistical sampling process for NPSAS:2000 is provided in figure G-1. The goal of all sampling activities was to attain NCES-required numbers of eligible sample postsecondary students (within specified student and institution types). An important domain of the required student sample was the set of students identified as baccalaureates, that is, students who were enrolled and received their bachelors degree between July 1, 1999 and June 30, 2000. These students comprise the baseline cohort for the Baccalaureate and Beyond (B&B) longitudinal study. Accounting for expected (from prior NPSAS rounds) rates of nonresponse and ineligibility among sample students and rates of B&B misclassification, the desired numbers of sample students were initially determined as shown, by type of institution and type of student classification, in table G-1. Since it was necessary to select the student samples on a flow basis as sample institutions provided their enrollment lists (in order to meet the data collection schedule), the students were sampled at fixed rates. Under this approach, the actual numbers of students sampled are random variables; however, the sampling rates were set to meet or exceed, in expectation, the sample sizes shown in table G-1.

Table G-1.—Target numbers of sample students, by institutional stratum and type of student

Institutional stratum	Total	Baccalaureate	Other undergraduate	Graduate	First-professional
Total	70,266	16,372	40,918	11,657	1,319
Public					
1 Less-than-2-year	1,996	†	1,996	†	†
2 2-year	10,976	†	10,976	†	†
Total less-than-4-year	12,972	†	12,972	†	†
3 Bachelor's, high education[1]	236	127	109	†	†
4 Bachelor's low education[2]	923	175	740	†	†
5 Masters, high education	2,124	1,223	694	208	†
6 Masters, low education	6,640	1,970	3,636	1,042	†
Total 4-year non-doctorate-granting	9,924	3,495	5,180	1,249	†
7 Doctorate-granting, high education	2,371	1,229	719	423	†
8 Doctorate-granting, low education	5,884	1,496	2,702	1,686	†
9 First-professional-granting, high education	3,985	1,983	1,175	764	63
10 First-professional-granting, low education	9,900	2,677	4,021	2,776	427
Total 4-year doctorate-granting	22,141	7,386	8,617	5,648	490
Private, not-for-profit					
11 Less-than-2-year	601	†	601	†	†
12 2-year	1,201	†	1,201	†	†
Total less-than-4-year	1,802	†	1,802	†	†
13 Bachelors, high education	739	423	315	†	†
14 Bachelors, low education	1,586	583	999	†	†
15 Masters, high education	1,595	855	543	197	†
16 Masters, low education	3,655	1,049	1,800	810	†
Total 4-year, non-doctorate-granting	7,574	2,910	3,658	1,006	†
17 Doctorate-granting, high education	781	263	209	309	†
18 Doctorate-granting, low education	1,310	262	418	630	†
19 First-professional-granting, high education	3,216	959	1,054	994	210
20 First-professional-granting, low education	4,013	956	856	1,589	612
Total 4-year, doctorate-granting	9,320	2,439	2,538	3,521	822
Private, for-profit					
21 Less-than-2-year	4,328	†	4,328	†	†
22 2-year or more	2,203	141	1,823	232	7
Total private, for-profit	6,531	141	6,151	232	7

† Not applicable

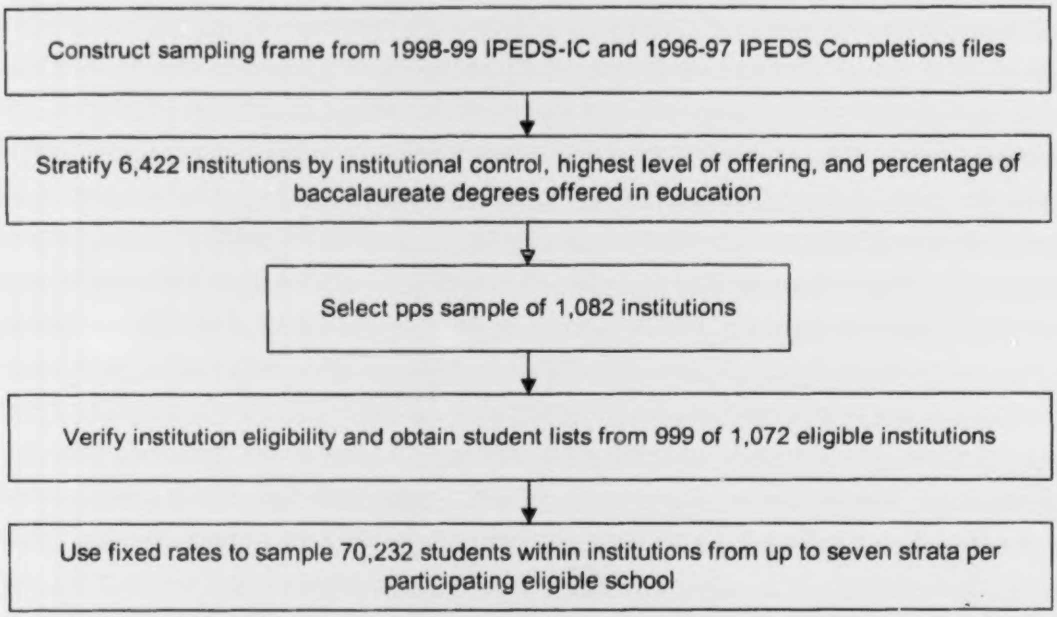
[1] A school is classified as "high-ed" if it is in the top 20 percent of its stratum in terms of baccalaureate students graduating with education degrees.

[2] A school is classified as "low-ed" if it is not in the top 20 percent of its stratum in terms of baccalaureate students graduating with education degrees.

NOTE: First-professional-granting institutions include doctoral degrees.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Figure G-1.—Schematic of sequential NPSAS:2000 sampling operations



Construct sampling frame from 1998-99 IPEDS-IC and 1996-97 IPEDS Completions files

Stratify 6,422 institutions by institutional control, highest level of offering, and percentage of baccalaureate degrees offered in education

Select pps sample of 1,082 institutions

Verify institution eligibility and obtain student lists from 999 of 1,072 eligible institutions

Use fixed rates to sample 70,232 students within institutions from up to seven strata per participating eligible school

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

The NPSAS:2000 sample also was designed to achieve at least 30 student CATI respondents from each sample institution that had at least that many eligible students enrolled during the NPSAS year. This was to allow NCES to send each participating institution a report using the results of the interviews with their students without violating confidentiality requirements. Consequently, institution sample sizes were determined to achieve an average of approximately 40 or more sample students per institution within each institutional stratum. Given these student sample size goals, the desired number of participating institutions was determined to be 1,008. Based on projected institutional participation rates obtained in prior NPSAS rounds and the NPSAS:2000 field test, an initial sample of 1,082 institutions was selected.

III. The Institutional Sample

The target population for NPSAS:2000 includes nearly all Title IV participating postsecondary institutions in the 50 states, the District of Columbia, and Puerto Rico. Specifically, to be eligible for NPSAS:2000 an institution is required, during the 1999-2000 academic year, to:

- offer an educational program designed for persons who have completed secondary education
- offer more than just correspondence courses

- offer at least one academic, occupational, or vocational program of study lasting at least 3 months or 300 clock hours
- offer courses that are open to more than the employees or members of the company or group (e.g., union) that administers the institution
- be located in the 50 states, the District of Columbia, or Puerto Rico
- be other than a U.S. Service Academy (which are not eligible for this financial aid study because of their unique funding/tuition base)
- have a signed Title IV participation agreement with the U.S. Department of Education.

Institutions providing only avocational, recreational, or remedial courses or only in-house courses for their own employees are excluded. The listed eligibility requirements are consistent with those used in previous NPSAS rounds, except for the last one which is new for NPSAS:2000.

A. Sample Frame Construction

The institution-level sampling frame for NPSAS:2000 was constructed from the 1998-99 Integrated Postsecondary Education Data System Institutional Characteristics (IPEDS-IC) file and the 1996-97 IPEDS Completions file. The IPEDS-IC database provides nearly complete coverage of the institutions in the target population. Listings include: (a) all institutions whose primary purpose is the provision of postsecondary education; (b) all branches of colleges, universities, and other institutions, as long as the branch offers a full program of study (not just courses); (c) free-standing medical schools, as well as schools of nursing, schools of radiology, etc., within hospitals; and (d) schools offering occupational and vocational training with the intent of preparing students for work (e.g., a modeling school training for professional modeling--not just a charm school). The IPEDS files do not include: (a) schools not open to the general public (i.e., training sites at prisons, military installations, corporations); (b) hospitals offering internships or residency programs only; or hospitals that only offer training as part of a medical school program at an institution of higher education; (c) organizational entities providing only noncredit continuing education (CEUs); (d) schools whose only purpose is to prepare students to take a particular test, (e.g., CPA examination or Bar exams); or (e) branch campuses of U.S. institutions in foreign countries. The completions file was used to obtain counts of total and business baccalaureate degree awarded and baccalaureate degrees awarded in education which, in turn, were used to compute measures of size and to stratify, respecitvely.

The IPEDS-IC file exclusions, themselves, eliminate some categories of ineligible institutions; however, additional deletion from this file was required. Starting with the 9,744 "institutions" on this database, records were deleted to yield a sampling frame containing 6,422 institutions *appearing* to be eligible for NPSAS:2000 based on their 1998-99 IPEDS-IC data. Deletions included: (1) administrative units; (2) U.S. Service academies; (3) schools outside of U.S. and Puerto Rico; (4) institutions offering no programs of at least 300 content hours, six semesters/trimesters, or 12 quarter hours and for which the highest level of offering was a certificate or diploma of less than one academic year; (5) Institutions offering only correspondence courses; (6) institutions not eligible for Title IV funding; and (7) institutions selected for sample for the field test. The latter deletion was possible without compromising population coverage because the field test sample was selected using stratified simple random sampling.[1]

Because enrollment data were needed to compute measures of size for sample selection, the 1998-99 IPEDS "unduplicated count" enrollment data were edited and/or imputed to eliminate missing data. Missing undergraduate, graduate, and first-professional enrollments were set to zero for institutions that did not offer that level of instruction, and missing baccalaureate counts were set to zero for institutions that did not award bachelors degrees. For institutions that provided only undergraduate instruction, missing undergraduate enrollment was obtained from the fall enrollment variables, if those were nonmissing. For institutions with any missing enrollments, enrollment was obtained from the 1997-98 IPEDS-IC file, if available. Finally, sets of records were identified for which the enrollment data either: (a) were reported with another institution's, or (b) contained combined data. In such cases, the combined enrollment data were allocated equally to all institutions in the set. For the remaining 57 records with missing enrollment data, imputation classes (defined by institutional sector (level and control) and first-professional, graduate, and undergraduate offering (yes or no)), were created and missing enrollment data were imputed for such cases as the imputation class median. This approach avoids imputing unusually large or unusually small enrollments.

The institutions on the sampling frame were then partitioned into 22 institutional strata based on institutional control, highest level of offering, and percentage of baccalaureate degrees awarded in education:

(1) Public less-than-2-year
(2) Public 2-year
(3) Public Bachelors high education[2]
(4) Public Bachelors low education
(5) Public Masters, high education
(6) Public Masters low education
(7) Public Doctorate-granting high education

---

[1] After large institutions, which were likely to be certainty institutions in the full-scale survey, were deleted from the field test institutional sampling frame, a stratified simple random sample of institutions was selected for the field test, using the same 22 strata that were used for the full-scale study. Although no probability-based inferences were planned for the field test, a probability-based sample was used because the complement of the field test sample was used for the full-scale study sampling frame. Each institution on the full-scale sampling frame received a first-stage sampling weight based on the probability that it was not selected for the field test sample. See U.S. Department of Education. National Center for Education Statistics. National Postseconary Student Aid Study: 2000 (NPSAS:2000) Field Test Methodology Report, NCES 2000-17, by Melissa R. Biber, Michael W. Link, John A. Riccobono and Peter H. Siegel. Washington, DC: October 2000.

[2] For each high education/low education breakout, the 20 percent of institutions with the highest proportions of their baccalaureate degrees awarded in education (based on the 1996-97 IPEDS Completions file) were defined to be the high education stratum. The purpose of this stratification was to ensure a certain sample size of students going into the teaching profession, which is an important analysis domain for the baccalaureate and beyond study.

(8) Public Doctorate-granting low education
(9) Public First-professional-granting, high education
(10) Public First-professional-granting, low education
(11) Private not-for-profit, less-than-2-year
(12) Private not-for-profit 2-year
(13) Private not-for-profit Bachelors, high education
(14) Private not-for-profit Bachelors, low education
(15) Private not-for-profit Masters, high education
(16) Private not-for-profit Masters, low education
(17) Private not-for-profit Doctorate-granting, high education
(18) Private not-for-profit doctorate-granting, low education
(19) Private not-for-profit first-professional-granting, high education
(20) Private not-for-profit first-professional-granting, low education
(21) Private for-profit less-than-2-year
(22) Private for-profit 2-year or more.

A stratified sample of 1,082 institutions was then selected with probabilities proportional to size (pps); some of these institutions subsequently proved to be ineligible and others failed to participate.

B. Selecting Sample Institutions

It was necessary to allocate the student sample to the separate applicable institutional (defined above) and student sampling strata. The student sampling strata used were:

(1) students receiving a baccalaureate degree in business
(2) students receiving a baccalaureate degree not in business
(3) other undergraduate students
(4) masters students
(5) doctoral students
(6) other graduate students
(7) first-professional students

In determining the allocation, the following notation is used:

(1) r = 1, 2, ..., 22 indexes the previously defined institutional strata

(2) s = 1, 2, 3, 7 indexes the previously defined initial student strata

(3) j = 1, 2, ..., J(r) indexes the institutions within stratum "r"

(4) $M_{rs}(j)$ = number of students enrolled during the NPSAS year who belong to student stratum "s" at the j-th institution in institutional stratum "r"

(5) m_{rs} = number of students to be selected from student stratum "s" within the r-th institutional stratum (referred to henceforth as student stratum "rs")

(6) $\pi_r(j)$ = probability of selecting the j-th institution in institutional stratum "r"

The overall population sampling rate (f_{rs}) for student stratum "rs" is given by

$$f_{rs} = m_{rs} / M_{rs}(+)$$

where

$$M_{rs}(+) = \sum_{j=1}^{J(r)} M_{rs}(j).$$

The initially computed stratum-level student sampling rates, f_{rs} (used to define institution measures of size) are shown in table G-2.. Table G-2 presents the sampling rates for the seven student domains consisting of baccalaureate business, baccalaureate non-business, other undergraduate, masters, doctoral, other graduate, and first-professional students based on the 1998-99 IPEDS IC file and 1996-97 IPEDS Completions file counts and the required sample sizes previously presented in table G-1. The IPEDS files do not provide separate counts for masters, doctoral, and other graduate students; hence, the partitioning of total graduate enrollment into these three categories was based on NPSAS:96 data.

The composite measure of size for the j-th institution in stratum "r" was then defined to be

$$S_r(j) = \sum_{s=1}^{7} f_{rs} M_{rs}(j),$$

which is the number of students that would be selected from the j-th institution if all institutions on the frame were to be sampled.

An independent sample of institutions was selected for each institutional stratum using Chromy's[3] sequential, probability minimum replacement (pmr) sampling algorithm to select institutions with probabilities proportional to their measures of size. However, rather than allow multiple selections of sample institutions, those with expected frequencies of selection greater than unity (1.00) were selected with certainty. The remainder of the institutional sample was selected from the remaining institutions within each stratum. Therefore, the probability of selection for the j-th institution in institutional stratum "r" is given by

$$\pi_r(j) = \begin{cases} \dfrac{n_r S_r(j)}{S_r(+)} & \text{for non-certainty selections,} \\ 1 & \text{for certainty selections ,} \end{cases}$$

where

$$S_r(+) = \sum_{j=1}^{J(r)} S_r(j).$$

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[3] J.R. Chromy, "Sequential Sample Selection Methods." *Proceedings of the American Statistical Association Section on Survey Research Methods*, 1979, 401-406.

Table G-2.—Student sampling rates used in determining measures of size by institutional stratum and type of student

Institutional stratum	Undergraduate Students								
	Baccalaureate						Other undergraduates		
	Business majors			Non-business majors					
	Size of universe	Sample size	Sampling rate	Size of universe	Sample size	Sampling rate	Size of universe	Sample size	Sampling rate
Total	221,964	1,366	0.0062	948,809	15,006	0.0158	17,121,076	40,915	0.0024
Public less-than-2-year	†	†	†	†	†	†	213,342	1,996	0.0094
Public 2-year	†	†	†	†	†	†	9,112,766	10,976	0.0012
Total less than 4-year	†	†	†	†	†	†	9,326,108	12,972	0.0014
Public bachelor's high education	954	14	0.0147	3,066	113	0.0369	37,480	109	0.0029
Public bachelor's low education	3,839	21	0.0055	15,715	155	0.0099	241,254	740	0.0031
Public master's high education	5,585	80	0.0143	31,732	1,143	0.0360	246,351	694	0.0028
Public master's low education	33,677	175	0.0052	146,050	1,795	0.0123	1,206,699	3,636	0.0030
Total public 4 year non-doctorate-granting	44,055	290	0.0066	196,563	3,206	0.0163	1,731,784	5,179	0.0030
Public doctorate high education	8,243	97	0.0118	35,979	1,133	0.0315	261,796	719	0.0027
Public doctorate low education	27,666	117	0.0042	125,234	1,380	0.0110	922,839	2,702	0.0029
Public for-profit high education	12,317	148	0.0120	55,764	1,836	0.0329	427,319	1,175	0.0027
Public for-profit low education	38,011	146	0.0038	227,253	2,531	0.0111	1,381,681	4,021	0.0029
Total public 4 year non-doctorate-granting	86,237	508	0.0059	444,230	6,880	0.0155	2,993,635	8,617	0.0029
Private not-for-profit less-than-2-year	†	†	†	†	†	†	22,462	601	0.0268
Private not-for-profit 2 -year	†	†	†	†	†	†	115,789	1,201	0.0104
Total private not-for-profit less-than-4-year	†	†	†	†	†	†	138,251	1,802	0.0130
Private not-for-profit bachelor's high education	3,967	43	0.0108	13,208	380	0.0288	112,573	315	0.0028
Private not-for-profit bachelor's low education	10,277	51	0.0050	46,082	532	0.0115	342,592	999	0.0029
Private not-for-profit master's high education	7,929	96	0.0121	23,949	758	0.0317	196,492	543	0.0028
Private not-for-profit master's low education	33,342	153	0.0046	79,456	896	0.0113	616,831	1,800	0.0029
Total private not-for-profit 4 year non-doctorate-granting	55,515	343	0.0062	162,695	2,566	0.0158	1,268,488	3,657	0.0029
Private not-for-profit doctorate high education	3,144	26	0.0083	9,314	237	0.0254	69,233	209	0.0030
Private not-for-profit doctorate low education	4,792	24	0.0050	19,547	237	0.0121	133,560	418	0.0031
Private not-for-profit first-professional high education	13,011	69	0.0053	52,907	889	0.0168	342,421	1,054	0.0031
Private not-for-profit first-professional low education	8,975	68	0.0076	54,641	888	0.0163	281,436	856	0.0030
Total private not-for-profit 4 year doctorate-granting	29,922	187	0.0062	136,409	2,251	0.0165	826,650	2,537	0.0031
Private for-profit less-than-2-year	†	†	†	†	†	†	282,500	4,328	0.0153
Private for-profit 2-year or more	6,235	38	0.0061	8,912	103	0.0116	553,660	1,823	0.0033
Total private for-profit	6,235	38	0.0061	8,912	103	0.0116	836,160	6,151	0.0074

Table G-2.—Student sampling rates used in determining measures of size by institutional stratum and type of student—Continued

Institutional stratum	GraduateStudents									First-professional students		
	Masters students			Doctoral students			Other graduate students					
	Size of universe	Sample size	Sampling rate	Size of universe	Sample size	Sampling rate	Size of universe	Sample size	Sampling rate	Size of universe	Sample size	Sampling rate
Total	1,600,969	5,821	0.0036	362,237	4,543	0.0125	560,847	1,294	0.0023	317,626	1,319	0.0042
Public less-than-2-year	†	†	†	†	†	†	†	†	†	†	†	†
Public 2-year	†	†	†	†	†	†	†	†	†	†	†	†
Total less than 4-year	†	†	†	†	†	†	†	†	†	†	†	†
Public bachelor's high education	†	†	†	†	†	†	†	†	†	†	†	†
Public bachelor's low education	†	†	†	†	†	†	3,331	8	0.0024	†	†	†
Public master's high education	43,119	157	0.0036	†	†	†	21,722	51	0.0023	†	†	†
Public master's low education	214,383	783	0.0037	†	†	†	107,997	251	0.0023	†	†	†
Total public 4-year non-doctorate granting	257,502	940	0.0037	†	†	†	133,050	310	0.0023	†	†	†
Public doctorate high education	50,210	178	0.0035	16,877	206	0.0122	17,300	39	0.0023	†	†	†
Public doctorate low education	200,030	710	0.0035	67,237	821	0.0122	68,918	155	0.0022	†	†	†
Public first-professional high education	90,614	322	0.0036	30,458	371	0.0122	31,220	71	0.0023	15,732	63	0.0040
Public first-professional low education	329,334	1,169	0.0035	110,700	1,351	0.0122	113,468	255	0.0022	107,440	427	0.0040
Total public 4 year doctorate granting	670,188	2,379	0.0035	225,272	2,749	0.0122	230,906	520	0.0023	123,172	490	0.0040
Private not-for-profit 2-year or less	†	†	†	†	†	†	†	†	†	†	†	†
Private not-for-profit 2-year	†	†	†	†	†	†	†	†	†	†	†	†
Total private not-for-profit less than 4-year	†	†	†	†	†	†	†	†	†	†	†	†
Private not-for-profit bachelor's high education	†	†	†	†	†	†	†	†	†	†	†	†
Private not-for-profit bachelor's low education	†	†	†	†	†	†	1,792	4	0.0022	†	†	†
Private not-for-profit master's high education	47,472	168	0.0035	†	†	†	13,002	29	0.0022	†	†	†
Private not-for-profit master's low education	193,521	686	0.0035	†	†	†	53,002	120	0.0023	†	†	†
Total Private not-for-profit 4-year non-doctorate-granting	240,993	854	0.0035	†	†	†	67,796	153	0.0023	†	†	†
Private not-for-profit doctorate high education	35,332	134	0.0038	11,295	148	0.0131	11,294	27	0.0024	†	†	†
Private not-for-profit doctorate low education	71,957	274	0.0038	23,003	301	0.0131	23,002	56	0.0024	†	†	†
Private not-for-profit first-professional high education	113,361	432	0.0038	36,238	474	0.0131	36,238	88	0.0024	49,285	210	0.0043
Private not-for-profit first-professional low education	181,343	691	0.0038	57,970	758	0.0131	57,971	139	0.0024	143,499	612	0.0043
Total private not-for-profit 4 year doctorate-granting	401,993	1,531	0.0038	128,506	1,681	0.0131	128,505	310	0.0024	192,784	822	0.0043
Private for-profit less-than-2-year	†	†	†		†	†	†	†	†	†	†	†
Private for-profit 2-year or more	30,293	117	0.0039	8,459	113	0.0134	590	1	0.0017	1,670	7	0.0042
Total private for-profit	30,293	117	0.0039	8,459	113	0.0134	590	1	0.0017	1,670	7	0.0042

† Not applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

and n_r^* is the number of non-certainty selections from stratum "r." The sampling algorithm was implemented with a random start for each institutional stratum to ensure the positive pairwise probabilities of selection that are needed for proper variance estimation.[4] The numbers of certainty and uncertainty schools selected, within each of the 22 institutional strata, are shown in table G-3.

Table G-3.—Institutional sampling rates and number of certainty and non-certainty institutions sampled, by institutional stratum

Institutional stratum[1]	Number of sample institutions		
	Total[2]	Certainty	Noncertainty
Total	1,082	286	796
Public			
1 Less-than-2-year	34	8	26
2 2-year	198	9	189
Total less-than-4-year	232	17	215
3 Bachelor's high education	5	0	5
4 Bachelor's low education	19	1	18
5 Master's high education	25	2	23
6 Master's low education	78	6	72
Total 4-year non-doctorate-granting	127	9	118
7 Doctorate-granting high education	25	25	0
8 Doctorate-granting low education	63	31	32
9 First-professional-granting, high education	29	29	0
10 First-professional-granting low education	103	88	15
Total 4-year doctorate-granting	220	173	47
Private not-for-profit			
11 Less-than-2-year	12	0	12
12 2-year	23	2	21
Total less-than-4-year	35	2	33
13 Bachelor's high education	17	0	17
14 Bachelor's low education	37	0	37
15 Master's high education	37	0	37
16 Master's low education	82	6	76
Total 4-year non-doctorate-granting	173	6	167
17 Doctorate-granting, high education	16	7	9
18 Doctorate-granting, low education	27	4	23
19 First-professional-granting, high education	57	32	25
20 First-professional-granting, low education	68	34	34
Total 4-year doctorate-granting	168	77	91
Private, for-profit			
21 Less-than-2-year	77	0	77
22 2-year or more	50	2	48
Total private for-profit	127	2	125

[1] Stratum reflects institutional categorization as determined from the 1998-99 IPEDS IC file; some errors in this classification were uncovered when institutions were contacted.

[2] During institutional contacting, we discovered that part of one school had recently split off and formed a separate institution. Both institutions were included in the sample, so the actual sample size is 1,083.

NOTE: "High education" refers to the 20 percent of institutions with the highest proportions of their baccalaureate degrees awarded in education (based on the 1996–97 IPEDS completions file). The remaining 80 percent of institutions were classified as "low education" (i.e., having a lower proportion of baccalaureate degrees awarded in education).

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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[4] J.R. Chromy, "Variance Estimators for a Sequential Sample Selection Procedure." In *Current Top IMS in Survey Sampling*, ed. D. Krewski, R. Platek, and J.N.K. Rao (New York: Academic Press), 1981, 329-347.

Within each of the "r" institutional strata, additional implicit stratification was accomplished by sorting the sampling frame in a serpentine manner.[5] For less-than-2-year, 2-year, and private, for-profit institutions the implicit strata were: (a) institutional level of offering (where levels had been collapsed to form strata); (b) the OBE Region from the IPEDS-IC file (Bureau of Economic Analysis of the U.S. Department of Commerce Region[6]); (c) FIPS state code; and (d) the institution measure of size. For public, 4-year and private not-for-profit, 4-year institutions, the implicit strata were: (a) Carnegie classifications or groupings of Carnegie classifications; (b) historically Black colleges and universities (HBCU) indicator; (c) the OBE Region from the IPEDS IC file; and (d) the institution measure of size. Table G-4 shows that the regional distribution of the sample is consistent with the sampling frame.

Table G-4.—Distribution of NPSAS:2000 institutional sample, by region

Region[1]	Sample institutions		IPEDS institutions[2]	
	Number	Percent	Number	Percent
1. New England	70	6.5	394	6.1
2. Mid East	197	18.2	1,147	17.9
3. Great Lakes	163	15.1	945	14.7
4. Plains	85	7.9	584	9.1
5. Southeast	223	20.6	1,503	23.4
6. Southwest	104	9.6	623	9.7
7. Rocky Mountains	40	3.7	214	3.3
8. Far West	178	16.5	887	13.8
9. Outlying Areas	22	2.0	125	2.0

[1] New England includes CT, ME, MA, NH, RI, VT; Mid East includes DE, DC, MD NJ, NY, PA; Great Lakes includes IL, IN, MI, OH, WI; Plains includes IA, KS, MN, MO, NE, ND, SD; Southeast includes AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV; Southwest includes AZ, NM, OK, TX; Rocky Mountains includes CO, ID, MT, UT, WY; Far West includes AK, CA, HI, NV, OR, WA; and Outlying Areas includes PR.

[2] Counts obtained from the sampling frame based on the 1998-99 IPEDS IC file.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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[5] R.L. Williams and J.R. Chromy, "SAS Sample Selection MACROs." *Proceedings of the fifth Annual SAS User's Group International Conference*, 1980, 392-396.

[6] For sorting purposes, Alaska and Hawaii were put with Puerto Rico in the Outlying areas region rather than in the Far West region.

IV. The Student Samples

The initial student sample was selected from lists provided by 999 of the 1,072 institutions (from the original sample) that proved to be eligible. The postsecondary students eligible for NPSAS:2000 were those who attended a NPSAS-eligible institution during the previously defined NPSAS year and who were:

- enrolled in *either* (a) an academic program; (b) at least one course for credit that could be applied toward fulfilling the requirements for an academic degree; *or* (c)occupational or vocational program that required at least 3 months or 300 clock hours of instruction to receive a degree, certificate, or other formal award
- not concurrently enrolled in high school
- not enrolled *solely* in a GED or other high school completion program

A. Construction of Sampling Frames

Each of the 1,072 sampled institutions that were verified to be eligible for NPSAS:2000 was asked to provide lists of all its students who satisfied all the NPSAS eligibility conditions, preferably "unduplicated," electronic lists (sent via e-mail, diskette, CD-ROM, or file transfer protocol (FTP)), together with identifying and classifying information (see Section 2.2.2 in the main report). Although electronic files were preferred, the preferences of sample institutions were accommodated, and whatever type(s) of student list(s) they were able to provide were accepted, as long as they were complete. (Final 1999-2000 enrollment lists were available from some institutions as early as January, 2000; however, other institutions could not provide final lists until December, 2000.) Separate, "unduplicated" lists (in which each student's name appears only once) were requested for baccalaureate business, baccalaureate non-business, other undergraduate, masters, doctoral, other graduate, and first-professional students (the student sampling strata) from those institutions providing hard copy lists. As expected, however, many institutions sent separate lists for each term or course of instruction; in which cases an individual student's name could appear on more than one list. In such cases, procedures were used to "unduplicate" the sample, to ensure that each student received only one chance of selection.

B. Student Sample Selection

Students were sampled on a flow basis as student lists were received. Stratified systematic sampling was used to ensure comparable sampling procedures for both hard-copy and electronic lists. For each institution, the student sampling rates, rather than the student sample sizes, were set to fixed values:

- to facilitate sampling students on a flow basis as student lists were received
- to facilitate the procedures used to "unduplicate" the samples selected from (duplicated) hard-copy lists

- because sampling at a fixed rate based on the overall stratum sampling rates and the institutional probabilities of selection results in approximately equal overall probabilities of selection within the ultimate institution-by-student strata

Electronic lists were "unduplicated" by sorting on the student ID number and deleting duplicates prior to sample selection. In the case of duplicated hard-copy lists, a stratified systematic sample was selected from each list provided (typically separate lists by term). For unduplication, if there was a separate baccalaureate list, all students in the sample selected from the baccalaureate list were retained for the sample, and the *samples* selected from all other lists were "unduplicated" against the baccalaureate list. The baccalaureate list was given precedence since a student receiving a bachelors degree was sampled as a baccalaureate regardless of student type. After giving precedence to baccalaureates or if there was not a separate baccalaureate list, non-baccalaureate students in the sample selected from the fall list were retained for the sample, and the *samples* selected from all other lists were "unduplicated" against the fall list. (The fall term was given precedence in this process for comparability with NPSAS:87, in which only fall enrollees were sampled.) If the institution did not have standard terms, other orderings of the student lists were used to achieve unduplication of the sample.

After the sample of students had been selected for an institution, the social security numbers of the sample students were compared to those of students who had already been selected from other institutions. When duplicates were detected, the duplicate was eliminated from the sample from the current institution so that no student would be included in the sample twice. Multiplicity adjustments in the sample weighting (see Chapter 6) account for the fact that any students who attended more than one institution in the NPSAS population had more than one chance of selection.

The development of student sampling rates within student stratum "rs" (i.e., the r-th institutional stratum and the s-th student stratum within institutional stratum) were previously discussed in Section III.B, and the notation used in that development will be used here. For graduate and first-professional students, these overall student sampling rates were shown in table G-2.

For the unconditional probability of selection to be a constant for all eligible students in stratum "rs," the overall probability of selection should be the overall student sampling fraction, f_{rs}; i.e., we must require that

$$\frac{m_{rs}(j)}{M_{rs}(j)}\pi_r(j)=f_{rs},$$

or equivalently,

$$m_{rs}(j)=f_{rs}\frac{M_{rs}(j)}{\pi_r(j)}.$$

Thus, the conditional sampling rate for stratum "rs," given selection of the j-th institution, becomes

$$f_{rs|j}=f_{rs}/\pi_r(j).$$

It should be noted that, in this case, the desired overall student sample size, m_s, is achieved only *in expectation* over all possible samples.

Achieving the desired sample sizes with equal probabilities within strata in the particular sample that has been selected and simultaneously adjusting for institutional nonresponse and ineligibility requires that

$$\sum_{j\in R} m_{rs}(j) = m_{rs},$$

where "R" denotes the set of eligible, *responding* institutions. Letting the conditional student sampling rate for stratum "rs" in the j-th institution be

$$\hat{f}_{rs|j} = \hat{f}_{rs} / \pi_r(j),$$

then requires

$$\sum_{i\in R} \hat{f}_{rs} \frac{M_{rs}(j)}{\pi_r(j)} = m_{rs},$$

or equivalently,

$$\hat{f}_{rs} = m_{rs} / \hat{M}_{rs}$$

where

$$\hat{M}_{rs} = \frac{\sum_{j\in R} M_{rs}(j)}{\pi_r(j)}.$$

Since it was necessary to set student sampling rates before complete information on institutional eligibility and response status was available, $\hat{M}_{rs}$ was calculated as follows:

$$\hat{M}_{rs} = \sum_{j\in S} \frac{M_{rs}(j)}{\pi_r(j)} * E_r * R_r * E_{rs},$$

where "S" denotes the set of all sample institutions,

E_r = the institutional eligibility factor for institutional stratum "r"
R_r = the institutional response factor for institutional stratum "r"
E_{rs} = the student eligibility factor for student stratum "rs"

These factors were the proportions of institutions or students, respectively, expected to be eligible or responding within the defined strata. Since this determination was made after eligibility status had already been determined for some institutions, values of 0 (known not eligible) or 1 (known eligible) were used, if known at that time.

Initial student sampling rates were calculated in this manner for each sample institution; these rates were designed to achieve equal probabilities of selection within the ultimate institution-by-student sampling strata. However, these rates were sometimes modified for reasons listed below.

- The student sampling rates were ratio adjusted upwards, as needed based on enrollment file counts, so that the sample size achieved at each sample institution would be at least 40 sample students, where possible. (The reason for this constraint was to facilitate obtaining at least 30 responding students for most participating institutions. The student sampling rates were decreased if the sample size was more than 50 greater than the institution had been told to expect, which was based on the sampling rate applied to the enrollment count, on the sampling frame. (This was to facilitate continued participation by the institutions for CADE data abstraction).

- The sample yield was monitored throughout the months during which student lists were received, and the student sampling rates were adjusted periodically for institutions for which sample selection had not yet been performed to ensure that the desired student sample sizes were achieved.

These adjustments to the initial sampling rates (especially the first two types of adjustments) resulted in some additional variability in the student sampling rates, and, hence, in some increase in survey design effects.

The planned and achieved sample sizes by student stratum and level of offering are shown in table G-5. Table G-5 shows that the rate adjustment procedures were generally effective; the overall sample yield was very close to what was planned (70,232 students as compared to the target of 70,266). The actual sample sizes achieved in total and within each institutional and student stratum, are shown in table G-6.

Table G-5.—Planned and achieved NPSAS:2000 student samples, by student stratum and level of offering

		Students sampled		
Student stratum[1]	Institutional level[2]	Number expected[3]	Number achieved	Percent[4]
Total	All institutions	70,266	70,232	100.0
Baccalaureate business	4-year	1,365	1,475	108.1
Baccalaureate other	4-year	15,006	15,147	100.9
Other undergraduate	All	40,918	40,981	100.2
	Less-than-2-year	6,925	6,665	96.2
	2-3 Year	12,653	13,240	104.6
	4+ Year	21,340	21,076	98.8
Master's	4-year	5,820	5,964	102.5
Doctorate	4-year	4,543	3,946	86.9
Other graduate	4-year	1,293	1,369	105.9
First-professional	4-year	1,319	1,350	102.4

[1] As expected, the sampling frames misclassified some individual students as to baccalaureate, undergraduate, graduate, and first-professional status; statistics presented in this table are based on the sampling frame classification.

[2] Institutional level is based on level confirmed by institution during school contacting.

[3] Based on sample allocation, 1998–1999 IPEDS IC file enrollment counts, and 1996–1997 IPEDS Completions file baccalaureate counts.

[4] Percent reported reflects the ratio of "achieved" to "planned."

[5] A percentage of each institution's graduate students were expected to be other graduate students (such as non-degree graduate or post-baccalaureate students) depending on type of institution, however the actual percentage of other graduate students varied by institution.

NOTE: Numbers may not sum to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table G-6.—Initial classification of NPSAS:2000 student sample, by type of institution and student stratum

Institution type	Total sample		Student sampling stratum[1]							
			Baccalaureate sample[2]		Other undergraduate sample		Graduate sample[2]		First-professional sample	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All institutions	70,232	100.0	16,622	100.0	40,981	100.0	11,279	100.0	1,350	100.0
Institutional level										
Less-than-2-year	6,665	9.5	†	†	6,665	16.3	†	†	†	†
2-year	13,240	18.9	†	†	13,240	32.3	†	†	†	†
4-year non-doctorate granting	18,754	26.7	6,645	40.0	9,824	24.0	2,285	20.3	†	†
4-year doctorate granting	31,573	45.0	9,977	60.0	11,252	27.5	8,994	79.7	1,350	100.0
Institutional control										
Public	43,748	62.3	10,745	64.6	25,974	63.4	6,537	58.0	492	36.4
Private not-for-profit	19,372	27.6	5,629	33.9	8,472	20.7	4,413	39.1	858	63.6
Private for-profit	7,112	10.1	248	1.5	6,535	16.0	329	2.9	†	†
Institutional sector										
Public less-than-2-year	1,527	2.2	†	†	1,527	3.7	†	†	†	†
Public 2-year	10,663	15.2	†	†	10,663	26.0	†	†	†	†
Public 4-year non-doctorate granting	9,884	14.1	3,464	20.8	5,208	12.7	1,212	10.8	NA	†
Public 4-year doctorate granting	21,674	30.9	7,281	43.8	8,576	20.9	5,325	47.2	492	36.4
Private not-for-profit 2-year or less	1,836	2.6	†	†	1,836	4.5	†	†	†	†
Private not-for-profit 4-year non-doctorate granting	8,005	11.4	3,033	18.3	4,043	9.9	929	8.2	†	†
Private not-for-profit 4-year doctorate granting	9,531	13.6	2,596	15.6	2,593	6.3	3,484	30.9	858	63.6
Private for-profit less-than-2-year	4,523	6.4	†	†	4,523	11.0	†	†	†	†
Private for-profit 2-year or more	2,589	3.7	248	1.5	2,012	4.9	329	2.9	†	†

† Not applicable.

[1] As expected the sampling frames misclassified some individual students as to baccalaureate undergraduate graduate and first-professional status; statistics presented in this table are based on the sampling frame classification.

[2] For this presentation the two baccalaureate strata have been combined and the masters, doctorate, and other graduate strata have been combined.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Appendix H
Supplemental Tables

Table H-1.—Number of students enrolled in postsecondary institutions by family income and student level for all institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	19,197,256	6,431,878	3,959,186	1,902,245	2,634,968	1,611,184	2,657,795
	SE weighted	242,841	168,892	96,309	36,279	36,359	108,864	42,307
Dependent less than $10,000	Weighted size	419,170	195,460	98,236	50,228	51,023	24,223	#
	SE weighted	17,958	11,634	7,949	5,234	3,879	4,838	#
Dependent $10,000-$19,999	Weighted size	659,361	300,194	176,154	77,819	70,103	35,091	#
	SE weighted	26,901	20,289	11,621	5,578	4,564	6,523	#
Dependent $20,000-$29,999	Weighted size	855,146	368,155	208,867	114,392	123,168	40,564	#
	SE weighted	29,193	20,582	11,426	6,940	6,249	6,638	#
Dependent $30,000-$39,999	Weighted size	830,617	353,526	207,604	115,631	116,712	37,144	#
	SE weighted	24,176	16,574	11,051	7,287	5,787	6,165	#
Dependent $40,000-$49,999	Weighted size	916,997	367,526	233,612	125,153	135,412	55,294	#
	SE weighted	24,927	16,814	15,563	7,788	6,843	7,453	#
Dependent $50,000-$59,999	Weighted size	837,680	344,182	197,363	122,420	137,696	36,019	#
	SE weighted	25,019	16,170	12,385	7,619	6,604	6,300	#
Dependent $60,000-$69,999	Weighted size	800,229	303,625	212,054	116,475	134,494	33,581	#
	SE weighted	25,724	17,473	12,750	6,528	5,836	5,331	#
Dependent $70,000-$79,999	Weighted size	593,463	236,969	139,989	83,468	106,326	26,711	#
	SE weighted	20,879	13,689	9,420	5,890	5,687	4,715	#
Dependent $80,000-$99,999	Weighted size	900,976	320,122	226,266	145,094	173,444	36,050	#
	SE weighted	24,951	15,819	11,454	7,921	7,564	5,290	#
Dependent $100,000 or more	Weighted size	1,312,032	451,485	320,396	219,374	268,514	52,263	#
	SE weighted	33,447	21,791	14,082	8,723	9,812	6,996	#
Independent less than $5,000	Weighted size	1,124,207	342,578	159,217	90,569	170,299	94,109	267,435
	SE weighted	30,446	19,103	11,373	6,525	7,062	10,493	12,783

Table H-1.—Number of students enrolled in postsecondary institutions by family income and student level for all institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent $5,000-$9,999	Weighted size	1,023,398	295,645	181,456	82,352	163,654	87,844	212,447
	SE weighted	28,578	16,989	12,717	5,876	7,484	9,197	8,182
Independent $10,000-$19,999	Weighted size	2,017,564	625,006	411,480	155,352	267,177	150,744	407,805
	SE weighted	46,724	29,747	23,752	8,803	9,504	14,145	12,180
Independent $20,000-$29,999	Weighted size	1,661,100	534,148	329,097	107,033	188,565	184,126	318,131
	SE weighted	41,067	30,426	16,510	6,733	9,281	15,527	11,004
Independent $30,000-$49,999	Weighted size	2,303,479	664,388	429,176	133,288	243,926	302,712	529,989
	SE weighted	53,406	34,251	23,333	9,316	9,477	24,487	15,393
Independent $50,000 or more	Weighted size	2,941,837	728,869	428,219	163,597	284,455	414,709	921,988
	SE weighted	61,073	33,669	24,415	10,386	12,355	30,818	24,310

Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-2.—Number of students enrolled in postsecondary institutions by family income and student level for public less-than-4-year institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	7,681,426	4,041,435	2,224,025	182,631	65,323	1,121,888	#
	SE weighted	205,362	151,527	88,707	21,059	6,684	104,909	#
Dependent less than $10,000	Weighted size	159,589	96,959	44,107	#	#	#	#
	SE weighted	11,798	8,664	6,512	#	#	#	#
Dependent $10,000-$19,999	Weighted size	279,881	160,939	85,747	#	#	24,528	#
	SE weighted	18,410	16,433	9,179	#	#	6,161	#
Dependent $20,000-$29,999	Weighted size	329,807	199,643	91,848	#	#	29,036	#
	SE weighted	20,802	15,703	8,964	#	#	6,331	#
Dependent $30,000-$39,999	Weighted size	322,945	198,096	87,431	#	#	22,652	#
	SE weighted	19,316	14,523	8,556	#	#	5,714	#
Dependent $40,000-$49,999	Weighted size	342,804	195,606	96,402	#	#	39,719	#
	SE weighted	18,231	14,468	13,260	#	#	7,074	#
Dependent $50,000-$59,999	Weighted size	298,396	184,688	79,016	#	#	24,087	#
	SE weighted	19,139	13,802	10,215	#	#	5,423	#
Dependent $60,000-$69,999	Weighted size	291,284	166,473	92,441	#	#	22,666	#
	SE weighted	21,636	15,893	10,256	#	#	4,997	#
Dependent $70,000-$79,999	Weighted size	193,589	119,334	51,357	#	#	19,716	#
	SE weighted	16,102	11,851	7,211	#	#	4,432	#
Dependent $80,000-$99,999	Weighted size	267,781	155,065	81,941	#	#	22,094	#
	SE weighted	19,266	13,244	8,423	#	#	4,827	#
Dependent $100,000 or more	Weighted size	351,968	205,639	94,250	#	#	33,470	#
	SE weighted	23,865	18,882	9,816	#	#	6,469	#
Independent less than $5,000	Weighted size	370,024	202,419	91,454	#	#	50,873	#
	SE weighted	19,059	14,811	9,530	#	#	7,478	#

Table H-2.—Number of students enrolled in postsecondary institutions by family income and student level for public less-than-4-year institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent $5,000-$9,999	Weighted size	361,188	179,473	115,460	#	#	54,074	#
	SE weighted	21,565	13,485	11,368	#	#	8,319	#
Independent $10,000-$19,999	Weighted size	850,116	438,062	280,070	18,615	#	93,126	#
	SE weighted	37,334	25,082	21,595	4,433	#	13,028	#
Independent $20,000-$29,999	Weighted size	808,406	402,448	244,722	#	#	137,902	#
	SE weighted	35,241	28,817	15,258	#	#	14,779	#
Independent $30,000-$49,999	Weighted size	1,135,207	532,656	335,343	22,417	#	227,124	#
	SE weighted	46,358	32,762	22,323	4,824	#	23,641	#
Independent $50,000 or more	Weighted size	1,318,441	603,935	352,436	32,329	#	306,934	#
	SE weighted	49,168	32,584	23,752	6,231	#	29,800	#

Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-3.—Number of students enrolled in postsecondary institutions by family income and student level for public 4-year institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	6,965,613	1,252,928	1,030,569	1,132,146	1,816,761	247,806	1,485,403
	SE weighted	87,845	39,465	26,850	21,889	29,963	15,261	24,736
Dependent less than $10,000	Weighted size	143,974	43,971	32,257	29,679	36,696	#	#
	SE weighted	8,391	4,841	3,539	3,733	3,454	#	#
Dependent $10,000-$19,999	Weighted size	241,384	83,014	58,388	46,611	49,920	#	#
	SE weighted	17,295	10,676	6,204	4,059	3,979	#	#
Dependent $20,000-$29,999	Weighted size	342,696	107,163	73,818	71,308	84,541	#	#
	SE weighted	18,561	12,437	5,758	5,527	5,189	#	#
Dependent $30,000-$39,999	Weighted size	336,440	103,432	76,814	70,975	77,862	#	#
	SE weighted	11,710	6,525	5,775	5,468	4,596	#	#
Dependent $40,000-$49,999	Weighted size	392,417	107,163	89,132	83,321	103,808	8,993	#
	SE weighted	14,336	6,880	6,704	6,007	6,207	1,821	#
Dependent $50,000-$59,999	Weighted size	352,142	96,247	77,739	75,088	96,800	#	#
	SE weighted	12,450	6,169	5,487	5,469	5,581	#	#
Dependent $60,000-$69,999	Weighted size	338,394	90,103	71,169	77,012	92,564	7,546	#
	SE weighted	10,864	6,175	5,960	4,908	4,891	1,633	#
Dependent $70,000-$79,999	Weighted size	259,254	73,475	59,069	49,544	73,695	#	#
	SE weighted	11,112	5,396	4,974	4,568	4,885	#	#
Dependent $80,000-$99,999	Weighted size	429,000	107,087	97,332	100,597	115,432	8,552	#
	SE weighted	12,949	7,411	6,174	6,444	6,125	1,703	#
Dependent $100,000 or more	Weighted size	601,583	148,721	133,011	135,209	171,872	12,770	#
	SE weighted	18,021	8,692	8,239	6,407	7,776	2,302	#
Independent less than $5,000	Weighted size	406,391	43,756	33,427	51,789	124,953	12,551	139,915
	SE weighted	12,525	4,556	4,128	4,694	6,124	2,093	7,149

Table H-3.—Number of students enrolled in postsecondary institutions by family income and student level for public 4-year institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent $5,000-$9,999	Weighted size	395,951	33,721	36,058	56,682	130,421	10,768	128,301
	SE weighted	11,641	3,708	3,874	4,781	6,542	1,951	5,674
Independent $10,000-$19,999	Weighted size	672,571	57,123	68,326	93,195	192,178	23,231	238,518
	SE weighted	18,158	5,788	7,077	6,261	7,834	3,024	9,055
Independent $20,000-$29,999	Weighted size	481,044	49,145	42,155	57,561	131,226	23,280	177,677
	SE weighted	15,465	4,668	4,732	4,750	8,213	3,384	8,229
Independent $30,000-$49,999	Weighted size	680,781	54,046	49,312	65,186	160,168	49,344	302,725
	SE weighted	19,328	5,025	5,171	5,750	7,930	5,401	11,025
Independent $50,000 or more	Weighted size	891,591	54,761	32,562	68,389	174,625	62,987	498,267
	SE weighted	22,183	5,055	3,618	5,434	8,090	5,824	15,141

Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-4.—Number of students enrolled in postsecondary institutions by family income and student level for private not-for-profit less-than-4-year institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	135,750	73,271	41,211	2,867	#	16,523	#
	SE weighted	8,427	5,027	3,903	1,449	#	3,393	#
Dependent less than $10,000	Weighted size	5,364	3,012	#	#	#	#	#
	SE weighted	1,371	705	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	8,934	5,552	#	#	#	#	#
	SE weighted	1,505	835	#	#	#	#	#
Dependent $20,000-$29,999	Weighted size	7,907	4,006	3,258	#	#	#	#
	SE weighted	1,043	755	571	#	#	#	#
Dependent $30,000-$39,999	Weighted size	7,833	4,510	#	#	#	#	#
	SE weighted	1,242	904	#	#	#	#	#
Dependent $40,000-$49,999	Weighted size	8,612	3,932	3,377	#	#	#	#
	SE weighted	1,326	741	703	#	#	#	#
Dependent $50,000-$59,999	Weighted size	7,650	4,252	#	#	#	#	#
	SE weighted	1,100	714	#	#	#	#	#
Dependent $60,000-$69,999	Weighted size	7,120	3,915	#	#	#	#	#
	SE weighted	1,251	927	#	#	#	#	#
Dependent $70,000-$79,999	Weighted size	4,874	#	#	#	#	#	#
	SE weighted	855	#	#	#	#	#	#
Dependent $80,000-$99,999	Weighted size	5,830	3,729	#	#	#	#	#
	SE weighted	1,047	631	#	#	#	#	#
Dependent $100,000 or more	Weighted size	8,146	4,086	3,585	#	#	#	#
	SE weighted	1,820	875	1,168	#	#	#	#
Independent less than $5,000	Weighted size	13,049	7,136	#	#	#	3,005	#
	SE weighted	2,731	1,806	#	#	#	1,477	#

Table H-4.—Number of students enrolled in postsecondary institutions by family income and student level for private not-for-profit less-than-4-year institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent $5,000-$9,999	Weighted size	11,004	5,672	3,089	#	#	2,067	#
	SE weighted	2,366	1,570	764	#	#	1,020	#
Independent $10,000-$19,999	Weighted size	15,268	8,228	4,700	#	#	2,198	#
	SE weighted	2,177	1,591	1,213	#	#	454	#
Independent $20,000-$29,999	Weighted size	8,904	4,905	#	#	#	#	#
	SE weighted	1,002	754	#	#	#	#	#
Independent $30,000-$49,999	Weighted size	9,077	4,440	#	#	#	#	#
	SE weighted	1,410	1,108	#	#	#	#	#
Independent $50,000 or more	Weighted size	6,178	#	#	#	#	#	#
	SE weighted	1,182	#	#	#	#	#	#

Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-5.—Number of students enrolled in postsecondary institutions by family income and student level for private not-for-profit 4-year institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	3,519,213	591,967	500,349	531,664	708,058	115,262	1,071,913
	SE weighted	54,631	23,874	16,478	16,483	16,710	12,401	30,771
Dependent less than $10,000	Weighted size	76,040	31,742	15,084	13,992	12,925	#	#
	SE weighted	8,529	5,080	2,392	2,758	1,687	#	#
Dependent $10,000-$19,999	Weighted size	95,548	31,286	22,864	20,369	17,988	#	#
	SE weighted	8,125	4,375	2,999	2,961	2,063	#	#
Dependent $20,000-$29,999	Weighted size	141,806	38,006	32,958	34,995	33,651	#	#
	SE weighted	7,382	3,770	3,623	3,644	3,105	#	#
Dependent $30,000-$39,999	Weighted size	135,790	30,583	36,752	30,692	32,817	#	#
	SE weighted	7,691	3,355	3,699	3,702	3,015	#	#
Dependent $40,000-$49,999	Weighted size	149,457	45,025	39,979	32,082	28,523	#	#
	SE weighted	8,255	4,251	4,306	3,921	2,616	#	#
Dependent $50,000-$59,999	Weighted size	161,054	49,117	33,599	37,635	37,234	#	#
	SE weighted	9,851	5,470	4,072	4,164	3,109	#	#
Dependent $60,000-$69,999	Weighted size	147,681	36,074	41,050	29,282	39,240	#	#
	SE weighted	8,240	3,560	4,542	3,122	2,943	#	#
Dependent $70,000-$79,999	Weighted size	121,892	34,050	24,757	29,488	31,326	#	#
	SE weighted	6,808	3,896	3,196	3,452	2,822	#	#
Dependent $80,000-$99,999	Weighted size	182,102	46,443	41,370	37,512	52,918	#	#
	SE weighted	8,486	4,147	4,480	3,352	3,801	#	#
Dependent $100,000 or more	Weighted size	336,221	85,610	85,138	72,368	88,278	#	#
	SE weighted	14,667	6,278	5,546	5,357	5,444	#	#

Table H-5.—Number of students enrolled in postsecondary institutions by family income and student level for private not-for-profit 4-year institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent less than $5,000	Weighted size	220,612	23,536	16,238	18,558	38,863	#	119,375
	SE weighted	12,654	4,211	2,923	2,785	3,150	#	10,454
Independent $5,000-$9,999	Weighted size	157,716	14,690	12,078	16,886	26,522	#	80,545
	SE weighted	8,306	2,389	2,235	2,114	3,221	#	5,869
Independent $10,000-$19,999	Weighted size	321,477	34,531	21,624	37,843	56,835	15,256	155,388
	SE weighted	12,704	4,497	2,793	4,014	4,042	2,964	7,996
Independent $20,000-$29,999	Weighted size	266,582	24,664	22,773	30,413	49,373	10,837	128,522
	SE weighted	10,418	3,628	3,369	3,204	3,867	2,209	6,776
Independent $30,000-$49,999	Weighted size	376,740	29,645	24,596	37,570	65,974	12,283	206,672
	SE weighted	14,696	4,504	3,671	4,898	4,171	2,015	9,884
Independent $50,000 or more	Weighted size	628,495	36,965	29,489	51,979	95,591	33,060	381,411
	SE weighted	25,381	4,607	3,893	5,309	8,870	4,275	15,968

Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-6.—Number of students enrolled in postsecondary institutions by family income and student level for private for-profit institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	895,254	472,277	163,032	52,937	43,518	109,705	53,785
	SE weighted	77,625	58,407	19,970	10,943	10,003	21,145	14,763
Dependent less than $10,000	Weighted size	34,203	19,776	#	#	#	5,702	#
	SE weighted	6,186	3,249	#	#	#	2,904	#
Dependent $10,000-$19,999	Weighted size	33,614	19,403	#	#	#	3,359	#
	SE weighted	4,166	2,788	#	#	#	1,262	#
Dependent $20,000-$29,999	Weighted size	32,930	19,337	6,985	#	#	3,111	#
	SE weighted	4,408	2,751	1,897	#	#	873	#
Dependent $30,000-$39,999	Weighted size	27,609	16,905	#	#	#	#	#
	SE weighted	3,686	3,023	#	#	#	#	#
Dependent $40,000-$49,999	Weighted size	23,707	15,800	#	#	#	#	#
	SE weighted	3,683	2,724	#	#	#	#	#
Dependent $50,000-$59,999	Weighted size	18,438	9,878	#	#	#	#	#
	SE weighted	2,524	1,583	#	#	#	#	#
Dependent $60,000-$69,999	Weighted size	15,750	7,060	#	#	#	#	#
	SE weighted	2,473	1,009	#	#	#	#	#
Dependent $70,000-$79,999	Weighted size	13,854	7,307	#	#	#	#	#
	SE weighted	2,474	1,491	#	#	#	#	#
Dependent $80,000-$99,999	Weighted size	16,263	7,798	#	#	#	#	#
	SE weighted	3,256	1,533	#	#	#	#	#
Dependent $100,000 or more	Weighted size	14,114	7,429	#	#	#	#	#
	SE weighted	2,439	1,607	#	#	#	#	#

Table H-6.—Number of students enrolled in postsecondary institutions by family income and student level for private for-profit institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent less than $5,000	Weighted size	114,131	65,731	15,771	#	#	23,638	#
	SE weighted	15,468	10,189	3,543	#	#	6,797	#
Independent $5,000-$9,999	Weighted size	97,539	62,089	14,771	#	#	13,940	#
	SE weighted	11,899	9,211	3,449	#	#	2,819	#
Independent $10,000-$19,999	Weighted size	158,132	87,062	36,760	#	6,873	16,933	4,872
	SE weighted	17,131	14,125	6,200	#	2,184	3,491	835
Independent $20,000-$29,999	Weighted size	96,164	52,986	17,146	#	5,089	10,802	5,523
	SE weighted	9,792	7,734	2,382	#	1,537	2,487	1,696
Independent $30,000-$49,999	Weighted size	101,674	43,601	17,653	#	8,998	12,167	11,289
	SE weighted	10,566	7,281	2,343	#	2,343	2,691	3,383
Independent $50,000 or more	Weighted size	97,132	30,115	12,101	10,410	6,566	10,934	27,006
	SE weighted	13,221	4,974	1,845	3,356	2,188	3,062	9,846

Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-7.—Number of students enrolled in postsecondary institutions by family income and student level for public 2-year institutions

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
TOTAL	Weighted size	7,568,894	4,005,658	2,212,007	178,921	62,560	1,063,624	#
	SE weighted	204,446	151,302	88,580	21,026	6,609	104,264	#
Dependent less than $10,000	Weighted size	158,783	96,470	44,087	#	#	#	#
	SE weighted	11,795	8,659	6,512	#	#	#	#
Dependent $10,000-$19,999	Weighted size	277,951	160,577	85,684	#	#	#	#
	SE weighted	18,400	16,431	9,179	#	#	#	#
Dependent $20,000-$29,999	Weighted size	326,784	198,569	91,594	#	#	27,419	#
	SE weighted	20,781	15,700	8,961	#	#	6,303	#
Dependent $30,000-$39,999	Weighted size	319,402	196,026	87,061	#	#	#	#
	SE weighted	19,262	14,497	8,552	#	#	#	#
Dependent $40,000-$49,999	Weighted size	339,808	194,750	95,653	#	#	38,328	#
	SE weighted	18,217	14,465	13,255	#	#	7,061	#
Dependent $50,000-$59,999	Weighted size	295,288	183,533	78,843	#	#	#	#
	SE weighted	19,124	13,797	10,214	#	#	#	#
Dependent $60,000-$69,999	Weighted size	289,411	165,460	92,198	#	#	#	#
	SE weighted	21,622	15,882	10,254	#	#	#	#
Dependent $70,000-$79,999	Weighted size	190,782	118,732	51,042	#	#	#	#
	SE weighted	16,077	11,848	7,207	#	#	#	#
Dependent $80,000-$99,999	Weighted size	265,740	154,143	81,699	#	#	#	#
	SE weighted	19,253	13,237	8,421	#	#	#	#
Dependent $100,000 or more	Weighted size	350,547	205,362	94,250	#	#	32,729	#
	SE weighted	23,857	18,881	9,816	#	#	6,453	#

Table H-7.—Number of students enrolled in postsecondary institutions by family income and student level for public 2-year institutions—Continued

Income		Total	Freshman	Sophomore	Junior	Senior	Unclassified undergraduate	Graduate/first-professional
Independent less than $5,000	Weighted size	361,504	199,298	90,710	#	#	46,234	#
	SE weighted	18,957	14,766	9,517	#	#	7,411	#
Independent $5,000-$9,999	Weighted size	351,006	176,723	114,433	#	#	48,017	#
	SE weighted	21,497	13,464	11,359	#	#	8,229	#
Independent $10,000-$19,999	Weighted size	831,446	432,207	278,062	#	#	83,799	#
	SE weighted	37,172	25,036	21,561	#	#	12,883	#
Independent $20,000-$29,999	Weighted size	791,849	397,668	241,321	#	#	130,401	#
	SE weighted	35,054	28,801	15,169	#	#	14,634	#
Independent $30,000-$49,999	Weighted size	1,117,415	528,415	333,938	21,568	#	216,578	#
	SE weighted	46,259	32,736	22,314	4,807	#	23,528	#
Independent $50,000 or more	Weighted size	1,301,178	597,725	351,432	32,137	#	297,382	#
	SE weighted	49,030	32,516	23,743	6,228	#	29,692	#

Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-8.—Number of students enrolled in postsecondary institutions by family income and tuition for all institutions

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	19,197,256	6,656,450	3,096,628	2,119,643	1,540,677	875,193	474,907	391,748	432,053
	SE weighted	242,841	177,934	86,941	60,904	47,025	34,434	24,355	19,495	57,856
Dependent less than $10,000	Weighted size	419,170	100,693	81,101	54,577	48,767	23,219	11,736	7,320	13,168
	SE weighted	17,958	9,676	8,039	5,928	6,461	3,258	2,807	1,556	2,997
Dependent $10,000-$19,999	Weighted size	659,361	178,999	123,434	92,835	71,685	32,716	11,931	10,547	11,250
	SE weighted	26,901	14,240	13,751	8,713	6,728	3,600	2,117	2,005	1,781
Dependent $20,000-$29,999	Weighted size	855,146	217,758	138,896	115,628	85,428	48,045	24,096	18,594	17,818
	SE weighted	29,193	15,432	11,424	11,494	6,232	4,893	3,316	2,870	3,173
Dependent $30,000-$39,999	Weighted size	830,617	216,589	121,567	107,001	95,362	46,183	21,301	15,563	13,364
	SE weighted	24,176	15,624	9,153	7,742	6,669	5,770	3,426	2,532	2,980
Dependent $40,000-$49,999	Weighted size	916,997	219,594	163,253	124,277	97,449	45,784	18,037	22,131	16,632
	SE weighted	24,927	14,854	12,390	8,849	6,827	4,781	2,852	2,902	3,117
Dependent $50,000-$59,999	Weighted size	837,680	184,237	137,163	124,171	86,096	50,351	19,824	17,528	14,623
	SE weighted	25,019	13,522	9,907	10,054	6,911	5,804	2,597	2,948	3,280
Dependent $60,000-$69,999	Weighted size	800,229	182,384	130,895	109,691	77,085	47,134	22,130	18,316	12,906
	SE weighted	25,724	15,412	10,720	8,842	5,128	4,332	2,845	2,929	2,007
Dependent $70,000-$79,999	Weighted size	593,463	119,545	91,493	68,107	63,131	38,883	15,899	13,845	10,866
	SE weighted	20,879	12,211	8,238	6,229	5,263	4,729	2,670	2,265	1,974
Dependent $80,000-$99,999	Weighted size	900,976	183,877	117,878	116,745	108,732	57,254	21,384	17,760	18,134
	SE weighted	24,951	15,380	7,942	8,599	7,037	5,965	2,957	2,841	2,699
Dependent $100,000 or more	Weighted size	1,312,032	234,725	162,218	158,091	149,366	82,223	25,692	23,435	19,999
	SE weighted	33,447	16,358	11,237	12,494	8,073	5,019	3,027	2,966	3,295
Independent less than $5,000	Weighted size	1,124,207	297,580	163,481	132,198	95,133	53,652	39,741	30,042	43,746
	SE weighted	30,446	18,090	9,882	11,588	7,339	5,085	4,689	3,429	9,179
Independent $5,000-$9,999	Weighted size	1,023,398	301,214	176,772	123,921	76,524	51,054	37,091	26,206	39,127
	SE weighted	28,578	17,388	11,899	7,942	5,644	4,171	3,948	3,077	8,380
Independent $10,000-$19,999	Weighted size	2,017,564	714,010	352,788	221,757	136,411	88,466	56,565	45,768	63,883
	SE weighted	46,724	32,080	17,948	11,654	8,326	5,466	5,818	4,390	13,589
Independent $20,000-$29,999	Weighted size	1,661,100	769,967	281,092	149,590	93,127	55,166	35,210	35,128	37,701
	SE weighted	41,067	33,430	13,647	9,003	6,993	4,492	3,462	4,444	8,199
Independent $30,000-$49,999	Weighted size	2,303,479	1,188,856	380,616	181,675	115,610	60,712	51,524	35,545	43,385
	SE weighted	53,406	42,972	18,879	10,525	7,170	4,456	4,277	3,935	8,085
Independent $50,000 or more	Weighted size	2,941,837	1,546,422	473,981	239,379	140,771	94,351	62,746	54,020	55,451
	SE weighted	61,073	47,674	18 371	11,137	7,986	7,197	5,063	5,009	6,690

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Table H-8.—Number of students enrolled in postsecondary institutions by family income and tuition for all institutions—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	306,650	286,696	169,436	192,699	150,030	135,079	140,377	1,111,312	1,117,678
	SE weighted	23,509	29,290	12,484	18,682	16,490	17,619	18,481	40,313	29,950
Dependent less than $10,000	Weighted size	6,208	6,376	#	#	#	#	#	19,339	28,450
	SE weighted	1,680	1,522	#	#	#	#	#	2,229	2,989
Dependent $10,000-$19,999	Weighted size	8,824	9,663	8,392	8,162	#	#	#	29,274	47,223
	SE weighted	1,817	1,978	2,264	1,753	#	#	#	3,550	4,031
Dependent $20,000-$29,999	Weighted size	12,513	17,530	9,145	8,752	8,190	8,353	8,480	51,263	64,657
	SE weighted	2,363	3,021	1,796	2,343	2,698	1,927	2,052	4,949	6,117
Dependent $30,000-$39,999	Weighted size	12,333	13,850	9,191	13,188	6,656	10,494	6,101	60,064	61,810
	SE weighted	2,274	2,824	2,189	2,588	1,592	2,325	1,290	5,526	5,095
Dependent $40,000-$49,999	Weighted size	13,899	14,786	7,433	10,316	12,730	8,381	12,859	68,564	60,872
	SE weighted	2,167	2,793	1,768	2,346	3,628	2,026	2,985	5,143	4,743
Dependent $50,000-$59,999	Weighted size	16,916	14,936	7,636	7,261	10,474	10,447	11,514	73,001	51,502
	SE weighted	2,804	2,647	1,534	1,586	2,216	2,842	2,628	7,150	4,108
Dependent $60,000-$69,999	Weighted size	14,176	14,416	10,259	10,796	9,768	9,858	6,421	72,471	51,523
	SE weighted	2,734	3,273	2,130	2,948	2,683	2,714	1,764	6,233	4,817
Dependent $70,000-$79,999	Weighted size	8,242	12,633	8,047	9,480	8,481	#	8,735	65,292	43,538
	SE weighted	1,852	2,471	1,891	2,151	2,267	#	2,428	5,235	4,129
Dependent $80,000-$99,999	Weighted size	12,084	14,916	12,086	13,274	11,558	10,904	14,540	96,118	73,732
	SE weighted	3,203	2,439	2,426	2,897	2,452	2,735	2,940	6,793	5,472
Dependent $100,000 or more	Weighted size	20,146	26,706	13,489	23,540	16,475	15,548	21,044	217,186	102,149
	SE weighted	3,084	3,207	2,379	3,708	2,472	2,853	4,587	12,327	6,320
Independent less than $5,000	Weighted size	26,928	23,609	11,874	16,300	13,127	9,115	8,098	95,086	64,497
	SE weighted	4,163	3,415	1,873	3,107	2,290	1,890	2,327	7,831	4,866
Independent $5,000-$9,999	Weighted size	24,073	20,391	11,901	12,213	7,811	6,068	5,941	54,342	48,749
	SE weighted	3,120	3,374	2,040	2,639	1,351	1,466	1,536	5,282	4,036
Independent $10,000-$19,999	Weighted size	36,537	33,328	17,531	19,586	11,027	10,811	12,142	89,288	107,666
	SE weighted	3,917	5,441	2,658	2,689	2,625	2,166	2,104	6,208	7,246
Independent $20,000-$29,999	Weighted size	26,467	17,983	13,194	9,823	7,848	7,337	5,316	43,551	72,600
	SE weighted	3,246	3,315	2,291	1,739	1,610	1,468	1,148	3,938	5,533
Independent $30,000-$49,999	Weighted size	30,801	22,630	13,658	14,052	9,989	#	#	39,092	105,869
	SE weighted	3,677	4,567	2,366	1,794	2,097	#	#	3,870	6,439
Independent $50,000 or more	Weighted size	36,503	22,943	11,500	12,137	9,086	7,622	#	37,381	132,841
	SE weighted	5,136	3,540	2,072	1,990	1,908	2,056	#	3,200	8,377

# Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-9.—Number of students enrolled in postsecondary institutions by family income and tuition for undergraduate students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	16,539,461	6,167,147	2,630,039	1,801,908	1,326,717	706,325	351,086	291,542	341,967
	SE weighted	239,178	176,372	83,244	59,496	45,541	32,222	22,165	17,823	57,321
Dependent less than $10,000	Weighted size	419,170	100,693	81,101	54,577	48,767	23,219	11,736	7,320	13,168
	SE weighted	17,941	9,676	8,039	5,928	6,461	3,258	2,807	1,556	2,997
Dependent $10,000-$19,999	Weighted size	659,361	178,999	123,434	92,835	71,685	32,716	11,931	10,547	11,250
	SE weighted	26,904	14,240	13,751	8,713	6,728	3,600	2,117	2,005	1,781
Dependent $20,000-$29,999	Weighted size	855,146	217,758	138,896	115,628	85,428	48,045	24,096	18,594	17,818
	SE weighted	29,192	15,432	11,424	11,494	6,232	4,893	3,316	2,870	3,173
Dependent $30,000-$39,999	Weighted size	830,617	216,589	121,567	107,001	95,362	46,183	21,301	15,563	13,364
	SE weighted	24,183	15,624	9,153	7,742	6,671	5,770	3,426	2,532	2,995
Dependent $40,000-$49,999	Weighted size	916,997	219,594	163,253	124,277	97,449	45,784	18,037	22,131	16,632
	SE weighted	24,981	14,854	12,390	8,849	6,827	4,781	2,852	2,927	3,117
Dependent $50,000-$59,999	Weighted size	837,680	184,237	137,163	124,171	86,096	50,351	19,824	17,528	14,623
	SE weighted	25,022	13,522	9,907	10,055	6,911	5,804	2,597	2,948	3,280
Dependent $60,000-$69,999	Weighted size	800,229	182,384	130,895	109,691	77,085	47,134	22,130	18,316	12,906
	SE weighted	25,708	13,412	10,720	8,842	5,128	4,332	2,845	2,929	2,007
Dependent $70,000-$79,999	Weighted size	593,863	110,545	91,493	68,107	63,131	38,883	15,899	13,845	10,866
	SE weighted	20,885	12,211	8,238	6,229	5,263	4,729	2,670	2,265	1,974
Dependent $80,000-$99,999	Weighted size	900,976	183,877	117,878	116,745	108,732	57,254	21,384	17,760	18,134
	SE weighted	24,963	15,380	7,942	8,599	7,037	5,965	2,957	2,841	2,699
Dependent $100,000 or more	Weighted size	1,312,032	234,725	162,218	158,091	149,366	82,223	25,692	23,435	19,999
	SE weighted	33,463	16,358	11,237	12,493	8,073	5,020	3,042	2,966	3,295
Independent less than $5,000	Weighted size	856,772	282,694	137,674	116,465	77,413	39,261	24,468	21,125	28,380
	SE weighted	28,423	18,168	9,221	11,290	6,954	4,462	3,810	3,014	8,336
Independent $5,000-$9,999	Weighted size	810,951	285,957	150,975	102,258	64,174	35,179	25,360	13,103	29,312
	SE weighted	27,452	17,180	11,486	7,625	5,361	3,669	3,698	2,059	8,246
Independent $10,000-$19,999	Weighted size	1,609,759	670,087	302,259	177,070	96,879	53,518	36,128	32,529	44,720
	SE weighted	45,134	31,564	17,236	10,066	7,247	4,852	5,044	3,894	13,340
Independent $20,000-$29,999	Weighted size	1,342,969	710,824	226,355	113,105	69,794	34,687	18,462	21,205	27,978
	SE weighted	39,681	33,011	12,851	7,930	6,393	3,827	2,448	3,474	8,080
Independent $30,000-$49,999	Weighted size	1,773,490	1,068,366	271,865	112,858	68,537	33,898	29,369	16,937	30,362
	SE weighted	51,362	42,190	17,170	8,517	5,681	3,380	3,052	3,063	7,952
Independent $50,000 or more	Weighted size	2,019,849	1,310,818	273,013	109,029	66,819	37,990	25,269	21,604	32,455
	SE weighted	54,804	46,575	14,670	7,786	5,722	4,648	3,309	3,380	6,453

Table H-9.—Number of students enrolled in postsecondary institutions by family income and tuition for undergraduate students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	220,941	222,807	134,169	148,692	119,200	111,572	113,856	826,164	1,025,329
	SE weighted	21,912	28,181	12,117	17,778	16,122	17,195	17,921	35,744	29,384
Dependent less than $10,000	Weighted size	6,208	6,376	#	#	#	#	#	19,339	28,450
	SE weighted	1,680	1,522	#	#	#	#	#	2,218	2,986
Dependent $10,000-$19,999	Weighted size	8,824	9,663	8,392	8,162	#	#	#	29,274	47,223
	SE weighted	1,817	1,978	2,271	1,753	#	#	#	3,552	4,031
Dependent $20,000-$29,999	Weighted size	12,513	17,530	9,145	8,752	8,190	8,353	8,480	51,263	64,657
	SE weighted	2,363	3,021	1,796	2,343	2,698	1,927	2,052	4,959	6,124
Dependent $30,000-$39,999	Weighted size	12,333	13,850	9,191	13,188	6,656	10,494	6,101	60,064	61,810
	SE weighted	2,278	2,824	2,189	2,588	1,592	2,326	1,302	5,519	5,104
Dependent $40,000-$49,999	Weighted size	13,899	14,786	7,433	10,316	12,730	8,381	12,859	68,564	60,872
	SE weighted	2,167	2,793	1,837	2,346	3,628	2,026	2,985	5,150	4,743
Dependent $50,000-$59,999	Weighted size	16,916	14,936	7,636	7,261	10,474	10,447	11,514	73,001	51,502
	SE weighted	2,804	2,647	1,534	1,586	2,216	2,842	2,652	7,153	4,108
Dependent $60,000-$69,999	Weighted size	14,176	14,416	10,259	10,796	9,768	9,858	6,421	72,471	51,523
	SE weighted	2,734	3,273	2,130	2,948	2,683	2,714	1,785	6,236	4,817
Dependent $70,000-$79,999	Weighted size	8,242	12,633	8,047	9,480	8,481	#	8,735	65,292	43,538
	SE weighted	1,852	2,473	1,891	2,151	2,267	#	2,422	5,235	4,128
Dependent $80,000-$99,999	Weighted size	12,084	14,916	12,086	13,274	11,558	10,904	14,540	96,118	73,732
	SE weighted	3,203	2,439	2,426	2,897	2,452	2,735	2,995	6,864	5,471
Dependent $100,000 or more	Weighted size	20,146	26,706	13,489	23,540	16,475	15,548	21,044	217,186	102,149
	SE weighted	3,103	3,207	2,408	3,708	2,472	2,853	4,550	12,212	6,319
Independent less than $5,000	Weighted size	17,338	12,248	7,478	5,331	6,564	#	#	17,972	55,751
	SE weighted	3,660	2,381	1,506	1,294	1,718	#	#	2,596	4,714
Independent $5,000-$9,999	Weighted size	15,943	14,764	6,683	6,184	#	#	#	11,718	41,988
	SE weighted	2,760	3,066	1,576	2,202	#	#	#	2,354	3,806
Independent $10,000-$19,999	Weighted size	20,952	19,634	10,188	9,762	7,668	7,298	#	22,805	92,708
	SE weighted	3,319	4,967	2,051	2,102	2,452	1,989	#	3,268	6,796
Independent $20,000-$29,999	Weighted size	13,849	9,080	8,819	6,614	#	#	#	9,221	63,251
	SE weighted	2,709	2,812	1,990	1,407	#	#	#	1,925	5,334
Independent $30,000-$49,999	Weighted size	15,710	10,277	6,843	8,224	#	#	#	6,852	85,978
	SE weighted	2,770	4,044	1,660	1,592	#	#	#	1,877	6,082
Independent $50,000 or more	Weighted size	11,808	10,992	#	#	#	#	#	#	100,197
	SE weighted	2,071	2,521	#	#	#	#	#	#	7,606

# Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

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Table H-10.—Number of students enrolled in postsecondary institutions by family income and tuition for graduate/first-professional students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	2,657,795	489,303	466,589	317,735	213,960	168,868	123,821	100,206	90,086
	SE weighted	42,307	17,128	17,761	13,432	10,847	9,780	10,127	7,610	8,099
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $60,000-$69,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $80,000-$99,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $100,000 or more	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Independent less than $5,000	Weighted size	267,435	14,886	25,807	15,733	17,720	14,391	15,273	8,917	15,366
	SE weighted	12,783	2,107	3,460	2,312	2,665	2,171	2,563	1,717	3,967
Independent $5,000-$9,999	Weighted size	212,447	15,257	25,797	21,663	12,350	15,875	11,731	13,103	9,815
	SE weighted	8,182	2,597	2,984	2,527	1,859	2,211	1,553	2,186	1,617
Independent $10,000-$19,999	Weighted size	407,805	43,923	50,529	44,687	39,532	34,948	20,437	13,239	19,163
	SE weighted	12,180	4,486	4,539	4,384	3,947	2,831	3,124	1,988	2,716
Independent $20,000-$29,999	Weighted size	318,131	59,143	54,737	36,485	23,333	20,479	16,748	13,923	9,723
	SE weighted	11,004	5,461	3,965	3,538	2,592	2,436	2,168	2,671	1,621
Independent $30,000-$49,999	Weighted size	529,989	120,490	108,751	68,817	47,073	26,814	22,155	18,608	13,023
	SE weighted	15,393	7,967	7,385	5,679	4,500	2,825	3,045	2,494	2,195
Independent $50,000 or more	Weighted size	921,988	235,604	200,968	130,350	73,952	56,361	37,477	32,416	22,996
	SE weighted	24,310	10,794	10,619	7,271	5,354	5,334	4,160	3,573	2,780

Table H-10.—Number of students enrolled in postsecondary institutions by family income and tuition for graduate/first-professional students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	85,709	63,889	35,267	44,007	30,830	23,507	26,521	285,148	92,349
	SE weighted	8,744	8,391	3,621	5,115	3,605	3,738	4,559	15,409	5,506
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $60,000-$69,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $80,000-$99,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $100,000 or more	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Independent less than $5,000	Weighted size	9,590	11,361	#	10,969	#	#	#	77,114	8,746
	SE weighted	1,900	2,449	#	2,744	#	#	#	7,702	1,509
Independent $5,000-$9,999	Weighted size	8,130	#	#	#	#	#	#	42,624	6,761
	SE weighted	1,482	#	#	#	#	#	#	4,284	1,297
Independent $10,000-$19,999	Weighted size	15,585	13,694	7,343	9,824	#	#	6,588	66,483	14,958
	SE weighted	2,089	2,093	1,704	1,601	#	#	1,287	5,085	2,410
Independent $20,000-$29,999	Weighted size	12,618	8,903	#	#	#	#	#	34,330	9,349
	SE weighted	1,767	1,823	#	#	#	#	#	3,261	1,283
Independent $30,000-$49,999	Weighted size	15,091	12,353	#	5,828	#	#	#	32,240	19,891
	SE weighted	2,613	2,037	#	953	#	#	#	2,850	2,528
Independent $50,000 or more	Weighted size	24,695	11,951	#	8,148	5,960	#	#	32,357	32,644
	SE weighted	4,640	2,804	#	1,440	1,521	#	#	2,891	3,071

# Insufficient number of cases for reliable estimation. Graduate students are independent students.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-11.—Number of students enrolled in postsecondary institutions by family income and tuition for freshman/first-year students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	6,431,878	3,120,673	1,016,421	542,584	358,817	174,151	113,534	91,617	144,848
	SE weighted	168,892	132,807	50,407	27,827	19,141	12,034	12,463	9,267	45,607
Dependent less than $10,000	Weighted size	195,460	64,706	40,206	19,673	19,955	5,896	#	#	#
	SE weighted	11,634	7,860	5,686	2,958	3,664	1,366	#	#	#
Dependent $10,000-$19,999	Weighted size	300,194	108,816	61,404	37,245	23,678	9,825	4,618	#	5,493
	SE weighted	20,289	12,658	9,111	5,479	3,812	1,759	1,196	#	1,343
Dependent $20,000-$29,999	Weighted size	368,155	131,741	71,705	46,083	27,517	10,148	10,022	#	8,484
	SE weighted	20,582	12,470	8,429	9,582	3,378	1,980	1,892	#	2,090
Dependent $30,000-$39,999	Weighted size	353,526	138,003	60,765	40,867	28,695	14,309	#	#	#
	SE weighted	16,574	12,047	7,465	4,856	3,577	2,976	#	#	#
Dependent $40,000-$49,999	Weighted size	367,526	129,932	73,351	44,350	26,052	11,834	#	7,578	#
	SE weighted	16,814	11,377	7,916	4,670	3,505	2,165	#	1,621	#
Dependent $50,000-$59,999	Weighted size	344,182	113,172	63,803	47,024	26,191	13,718	#	#	#
	SE weighted	16,170	10,885	7,212	6,336	3,989	2,707	#	#	#
Dependent $60,000-$69,999	Weighted size	303,625	104,858	60,819	31,946	17,547	15,641	7,328	#	#
	SE weighted	17,473	11,221	8,956	5,049	2,673	2,597	1,572	#	#
Dependent $70,000-$79,999	Weighted size	236,969	69,893	46,018	24,533	18,774	12,201	#	#	#
	SE weighted	13,689	8,539	6,413	3,867	2,854	2,141	#	#	#
Dependent $80,000-$99,999	Weighted size	320,122	102,486	47,582	34,244	27,697	11,664	#	#	#
	SE weighted	15,819	11,138	5,745	5,641	3,660	2,284	#	#	#
Dependent $100,000 or more	Weighted size	451,485	142,525	60,648	47,502	33,110	19,826	#	#	#
	SE weighted	21,791	14,660	7,337	5,772	3,815	2,831	#	#	#
Independent less than $5,000	Weighted size	342,578	152,233	47,979	37,585	23,839	8,647	11,113	7,100	14,186
	SE weighted	19,103	12,953	6,340	5,809	3,512	1,636	2,829	1,791	6,148
Independent $5,000-$9,999	Weighted size	295,645	141,100	48,329	19,358	14,664	7,496	10,269	6,117	19,419
	SE weighted	16,989	11,384	6,438	2,848	2,432	1,727	2,776	1,270	7,279
Independent $10,000-$19,999	Weighted size	625,006	341,316	104,422	40,569	26,205	13,338	12,665	11,449	23,368
	SE weighted	29,747	21,569	10,826	4,840	3,826	2,339	3,097	2,554	11,157
Independent $20,000-$29,999	Weighted size	534,148	336,095	71,770	26,088	18,696	8,907	5,829	9,191	14,475
	SE weighted	30,426	26,026	7,153	4,154	2,919	1,868	1,488	2,186	6,088
Independent $30,000-$49,999	Weighted size	664,388	477,398	82,433	24,911	14,691	#	8,261	5,274	11,832
	SE weighted	34,251	29,598	9,172	3,742	2,327	#	1,770	1,397	5,513
Independent $50,000 or more	Weighted size	728,869	566,399	75,187	20,606	11,506	#	5,946	#	7,308
	SE weighted	33,669	31,985	8,466	3,163	2,513	#	1,462	#	3,259

Table H-11.—Number of students enrolled in postsecondary institutions by family income and tuition for freshman/first-year students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	74,404	70,069	34,735	42,061	29,914	27,647	26,733	197,112	366,558
	SE weighted	12,301	12,616	4,968	6,730	5,174	5,224	5,452	11,561	16,420
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	#	12,489
	SE weighted	#	#	#	#	#	#	#	#	2,293
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	20,508
	SE weighted	#	#	#	#	#	#	#	#	2,785
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	10,399	24,003
	SE weighted	#	#	#	#	#	#	#	1,829	3,256
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	11,327	22,357
	SE weighted	#	#	#	#	#	#	#	1,995	2,975
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	19,789	21,414
	SE weighted	#	#	#	#	#	#	#	3,041	2,828
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	#	21,960	21,175
	SE weighted	#	#	#	#	#	#	#	4,058	2,798
Dependent $60,000-$69,999	Weighted size	#	#	#	#	#	#	#	16,550	19,640
	SE weighted	#	#	#	#	#	#	#	2,587	2,986
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	16,962	20,231
	SE weighted	#	#	#	#	#	#	#	2,635	3,093
Dependent $80,000-$99,999	Weighted size	#	#	#	#	#	#	#	23,442	29,110
	SE weighted	#	#	#	#	#	#	#	3,081	3,084
Dependent $100,000 or more	Weighted size	#	#	#	#	#	#	#	58,696	38,860
	SE weighted	#	#	#	#	#	#	#	5,639	4,505
Independent less than $5,000	Weighted size	9,814	#	#	#	#	#	#	#	17,147
	SE weighted	2,487	#	#	#	#	#	#	#	2,837
Independent $5,000-$9,999	Weighted size	5,736	5,322	#	#	#	#	#	#	12,833
	SE weighted	1,592	1,801	#	#	#	#	#	#	1,921
Independent $10,000-$19,999	Weighted size	8,909	#	#	#	#	#	#	#	30,463
	SE weighted	2,396	#	#	#	#	#	#	#	4,036
Independent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	27,632
	SE weighted	#	#	#	#	#	#	#	#	3,803
Independent $30,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	21,898
	SE weighted	#	#	#	#	#	#	#	#	3,106
Independent $50,000 or more	Weighted size	#	#	#	#	#	#	#	#	26,798
	SE weighted	#	#	#	#	#	#	#	#	3,641

# Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-12.—Number of students enrolled in postsecondary institutions by family income and tuition for sophomore/second-year students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	3,959,186	1,455,226	736,034	427,396	284,965	138,343	60,654	67,111	66,794
	SE weighted	96,309	68,505	37,135	24,268	15,554	9,725	6,102	5,706	10,958
Dependent less than $10,000	Weighted size	98,236	22,488	20,584	17,015	10,917	#	#	#	#
	SE weighted	7,949	4,561	3,936	4,052	2,283	#	#	#	#
Dependent $10,000-$19,999	Weighted size	176,154	44,238	36,653	27,364	19,248	#	#	#	#
	SE weighted	11,621	5,532	6,070	4,600	3,216	#	#	#	#
Dependent $20,000-$29,999	Weighted size	208,867	45,474	40,386	27,281	21,326	11,645	#	#	#
	SE weigned	11,426	7,133	5,633	4,121	3,118	2,514	#	#	#
Dependent $30,000-$39,999	Weighted size	207,604	47,457	36,260	24,999	21,584	#	#	#	#
	SE weighted	11,051	6,422	4,587	3,893	3,157	#	#	#	#
Dependent $40,000-$49,999	Weighted size	233,612	43,333	48,453	32,643	26,106	#	#	#	#
	SE weighted	15,563	6,848	9,349	4,493	3,615	#	#	#	#
Dependent $50,000-$59,999	Weighted size	197,363	39,063	40,023	30,539	19,996	#	#	#	#
	SE weighted	12,385	6,334	5,862	4,767	3,248	#	#	#	#
Dependent $60,000-$69,999	Weighted size	212,054	46,310	34,628	33,732	17,356	#	#	#	#
	SE weighted	12,750	8,340	6,003	4,500	3,254	#	#	#	#
Dependent $70,000-$79,999	Weighted size	139,989	24,211	23,498	16,792	17,145	#	#	#	#
	SE weighted	9,420	5,216	4,361	2,784	2,859	#	#	#	#
Dependent $80,000-$99,999	Weighted size	226,266	46,972	33,655	32,048	23,877	13,896	#	#	#
	SE weighted	11,454	6,421	4,082	4,043	3,245	2,657	#	#	#
Dependent $100,000 or more	Weighted size	320,396	40,520	53,325	40,381	36,518	19,943	#	#	#
	SE weighted	14,082	5,569	6,129	6,428	4,182	2,758	#	#	#
Independent less than $5,000	Weighted size	159,217	59,113	35,277	16,807	9,466	#	#	#	#
	SE weighted	11,373	7,655	5,343	2,996	2,454	#	#	#	#
Independent $5,000-$9,999	Weighted size	181,456	72,092	40,160	19,638	#	#	#	#	#
	SE weighted	12,717	9,610	5,656	3,154	#	#	#	#	#
Independent $10,000-$19,999	Weighted size	411,480	189,320	78,940	43,763	19,877	#	#	#	10,968
	SE weighted	23,752	18,014	8,919	6,567	3,332	#	#	#	3,810
Independent $20,000-$29,999	Weighted size	329,097	184,764	64,728	21,805	11,553	#	#	#	#
	SE weighted	16,510	13,055	7,797	3,275	2,599	#	#	#	#
Independent $30,000-$49,999	Weighted size	429,176	262,370	80,723	24,458	10,785	#	#	#	#
	SE weighted	23,333	18,682	10,755	4,444	2,525	#	#	#	#
Independent $50,000 or more	Weighted size	428,219	287,501	68,741	18,131	10,058	#	#	#	#
	SE weighted	24,415	21,217	8,759	3,485	2,233	#	#	#	#

Table H-12.—Number of students enrolled in postsecondary institutions by family income and tuition for sophomore/second-year students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	51,035	57,497	32,793	34,122	30,192	31,537	25,425	208,682	251,380
	SE weighted	6,574	10,507	4,630	5,219	5,930	6,583	5,007	13,475	10,546
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	12,759
	SE weighted	#	#	#	#	#	#	#	#	1,893
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	13,351	17,954
	SE weighted	#	#	#	#	#	#	#	2,417	2,868
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	21,049	16,965
	SE weighted	#	#	#	#	#	#	#	2,993	2,532
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	20,963	17,143
	SE weighted	#	#	#	#	#	#	#	3,275	2,453
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	#	13,424	10,435
	SE weighted	#	#	#	#	#	#	#	2,490	1,904
Dependent $60,000-$69,999	Weighted size	#	#	#	#	#	#	#	24,352	13,849
	SE weighted	#	#	#	#	#	#	#	3,716	2,355
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	12,596	11,240
	SE weighted	#	#	#	#	#	#	#	2,169	1,991
Dependent $80,000-$99,999	Weighted size	#	#	#	#	#	#	#	23,754	21,156
	SE weighted	#	#	#	#	#	#	#	3,415	2,806
Dependent $100,000 or more	Weighted size	#	#	#	#	#	#	#	53,119	25,629
	SE weighted	#	#	#	#	#	#	#	4,710	2,741
Independent less than $5,000	Weighted size	#	#	#	#	#	#	#	#	8,653
	SE weighted	#	#	#	#	#	#	#	#	1,666
Independent $5,000-$9,999	Weighted size	#	#	#	#	#	#	#	#	11,690
	SE weighted	#	#	#	#	#	#	#	#	2,274
Independent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	20,214
	SE weighted	#	#	#	#	#	#	#	#	3,078
Independent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	14,300
	SE weighted	#	#	#	#	#	#	#	#	2,728
Independent $30,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	20,019
	SE weighted	#	#	#	#	#	#	#	#	3,023
Independent $50,000 or more	Weighted size	#	#	#	#	#	#	#	#	23,357
	SE weighted	#	#	#	#	#	#	#	#	3,419

# Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-13.—Number of students enrolled in postsecondary institutions by family income and tuition for junior/third-year students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	1,902,245	191,443	238,051	287,636	283,482	151,763	58,252	51,653	46,925
	SE weighted	36,279	14,096	13,118	13,031	14,351	10,818	6,006	5,435	6,137
Dependent less than $10,000	Weighted size	50,228	#	#	#	#	#	#	#	#
	SE weighted	5,234	#	#	#	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	77,819	#	#	#	15,790	#	#	#	#
	SE weighted	5,578	#	#	#	2,521	#	#	#	#
Dependent $20,000-$29,999	Weighted size	114,392	#	#	20,187	15,081	11,926	#	#	#
	SE weighted	6,940	#	#	3,119	2,460	2,235	#	#	#
Dependent $30,000-$39,999	Weighted size	115,631	#	#	19,004	22,723	#	#	#	#
	SE weighted	7,287	#	#	2,918	3,473	#	#	#	#
Dependent $40,000-$49,999	Weighted size	125,153	#	12,453	18,449	22,123	#	#	#	#
	SE weighted	7,788	#	2,332	2,970	2,792	#	#	#	#
Dependent $50,000-$59,999	Weighted size	122,420	#	#	20,035	18,763	11,273	#	#	#
	SE weighted	7,619	#	#	2,813	2,877	2,447	#	#	#
Dependent $60,000-$69,999	Weighted size	116,475	#	#	17,152	23,084	#	#	#	#
	SE weighted	6,528	#	#	2,694	2,746	#	#	#	#
Dependent $70,000-$79,999	Weighted size	83,468	#	#	#	10,578	#	#	#	#
	SE weighted	5,890	#	#	#	2,215	#	#	#	#
Dependent $80,000-$99,999	Weighted size	145,094	#	#	19,621	27,553	16,555	#	#	#
	SE weighted	7,921	#	#	2,691	3,999	2,762	#	#	#
Dependent $100,000 or more	Weighted size	219,374	#	15,434	32,680	33,078	17,156	#	#	#
	SE weighted	8,723	#	2,859	3,555	3,560	2,236	#	#	#
Independent less than $5,000	Weighted size	90,569	#	14,959	15,249	15,297	#	#	#	#
	SE weighted	6,525	#	2,750	3,457	2,607	#	#	#	#
Independent $5,000-$9,999	Weighted size	82,352	#	14,026	16,963	15,950	#	#	#	#
	SE weighted	5,876	#	2,441	2,707	2,499	#	#	#	#
Independent $10,000-$19,999	Weighted size	155,352	20,542	29,591	31,593	15,390	10,303	#	#	#
	SE weighted	8,803	3,802	3,677	3,591	2,372	2,043	#	#	#
Independent $20,000-$29,999	Weighted size	107,033	21,045	19,008	17,531	13,862	#	#	#	#
	SE weighted	6,733	3,386	2,688	2,623	2,248	#	#	#	#
Independent $30,000-$49,999	Weighted size	133,288	31,952	32,983	15,635	9,785	#	#	#	#
	SE weighted	9,316	4,842	4,528	2,493	1,928	#	#	#	#
Independent $50,000 or more	Weighted size	163,597	51,615	31,591	16,888	13,683	#	#	#	#
	SE weighted	10,386	6,239	4,058	2,708	2,257	#	#	#	#

Table H-13.—Number of students enrolled in postsecondary institutions by family income and tuition for junior/third-year students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	37,806	36,609	31,697	31,664	23,911	23,252	29,151	195,201	183,749
	SE weighted	5,649	4,562	4,243	5,291	4,876	4,535	5,313	10,781	10,431
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	9,487
	SE weighted	#	#	#	#	#	#	#	#	1,859
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	14,363	12,891
	SE weighted	#	#	#	#	#	#	#	2,410	2,424
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	14,275	12,438
	SE weighted	#	#	#	#	#	#	#	2,741	2,188
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	13,775	11,041
	SE weighted	#	#	#	#	#	#	#	2,338	2,063
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	#	22,572	10,818
	SE weighted	#	#	#	#	#	#	#	3,444	1,822
Dependent $60,000-$69,999	Weighted size	#	#	#	#	#	#	#	14,371	12,106
	SE weighted	#	#	#	#	#	#	#	2,312	2,535
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	17,415	7,928
	SE weighted	#	#	#	#	#	#	#	2,737	1,569
Dependent $80,000-$99,999	Weighted size	#	#	#	#	#	#	#	19,272	12,789
	SE weighted	#	#	#	#	#	#	#	2,395	2,011
Dependent $100,000 or more	Weighted size	#	#	#	#	#	#	#	44,578	18,895
	SE weighted	#	#	#	#	#	#	#	3,994	2,507
Independent less than $5,000	Weighted size	#	#	#	#	#	#	#	#	11,469
	SE weighted	#	#	#	#	#	#	#	#	1,959
Independent $5,000-$9,999	Weighted size	#	#	#	#	#	#	#	#	#
	SE weighted	#	#	#	#	#	#	#	#	#
Independent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	#	14,275
	SE weighted	#	#	#	#	#	#	#	#	2,202
Independent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	7,632
	SE weighted	#	#	#	#	#	#	#	#	1,857
Independent $30,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	12,918
	SE weighted	#	#	#	#	#	#	#	#	2,577
Independent $50,000 or more	Weighted size	#	#	#	#	#	#	#	#	16,964
	SE weighted	#	#	#	#	#	#	#	#	2,937

# Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table H-14.—Number of students enrolled in postsecondary institutions by family income and tuition for senior/fourth- or fifth-year students

Income		Total	$0-$999	$1000-$1999	$2000-$2999	$3000-$3999	$4000-$4999	$5000-$5999	$6000-$6999	$7000-$7999
TOTAL	Weighted size	2,634,968	268,934	472,531	460,581	350,395	211,697	98,048	73,737	61,571
	SE weighted	36,359	11,540	18,463	15,723	12,438	10,305	6,293	5,991	6,497
Dependent less than $10,000	Weighted size	51,023	#	9,373	8,938	5,678	6,802	#	#	#
	SE weighted	3,879	#	1,562	1,707	1,114	1,375	#	#	#
Dependent $10,000-$19,999	Weighted size	70,103	#	11,144	13,017	11,381	7,585	#	#	#
	SE weighted	4,564	#	2,190	1,941	1,930	1,353	#	#	#
Dependent $20,000-$29,999	Weighted size	123,168	7,228	14,422	19,741	19,960	13,169	5,358	#	#
	SE weighted	6,249	1,421	2,026	2,531	2,306	1,954	1,298	#	#
Dependent $30,000-$39,999	Weighted size	116,712	4,021	14,738	19,027	20,164	9,174	3,794	#	#
	SE weighted	5,787	885	2,056	2,801	2,268	1,384	843	#	#
Dependent $40,000-$49,999	Weighted size	135,412	6,130	21,193	26,193	21,699	11,073	6,661	#	3,074
	SE weighted	6,843	1,177	2,506	3,776	2,590	1,680	1,396	#	744
Dependent $50,000-$59,999	Weighted size	137,696	4,701	17,583	24,276	20,352	14,622	5,201	7,040	#
	SE weighted	6,604	980	2,125	2,616	2,522	2,686	1,149	1,548	#
Dependent $60,000-$69,999	Weighted size	134,494	7,077	18,351	24,011	18,256	12,793	5,632	#	#
	SE weighted	5,836	1,315	2,196	2,804	2,162	1,804	1,179	#	#
Dependent $70,000-$79,999	Weighted size	106,326	4,563	12,996	14,819	15,187	12,408	4,147	#	#
	SE weighted	5,687	1,005	1,950	2,061	2,027	2,292	884	#	#
Dependent $80,000-$99.999	Weighted size	173,444	6,508	19,355	28,819	27,120	14,408	7,069	#	#
	SE weighted	7,564	1,321	2,470	2,668	2,813	1,976	1,460	#	#
Dependent $100,000 or more	Weighted size	268,514	9,979	23,515	35,858	44,204	23,849	8,215	8,113	3,920
	SE weighted	9,812	1,769	2,452	3,662	3,984	3,918	1,367	1,606	1,000
Independent less than $5,000	Weighted size	170,299	16,072	30,327	36,670	22,629	14,836	4,650	5,551	#
	SE weighted	7,062	2,121	2,955	3,345	2,273	1,999	980	1,248	#
Independent $5.000-$9,999	Weighted size	163,654	15,888	38,488	37,376	21,647	12,793	6,370	#	#
	SE weighted	7,484	2,059	3,896	3,940	2,499	1,982	1,262	#	#
Independent $10,000-$19,999	Weighted size	267,177	30,339	64,998	52,413	29,554	16,818	11,953	7,609	5,404
	SE weighted	9,504	3,131	5,066	4,168	2,746	2,254	1,829	1,503	1,493
Independent $20,000-$29,999	Weighted size	188,565	33,662	51,524	38,396	19,931	9,540	#	#	#
	SE weighted	9,281	3,333	5,216	4,388	2,594	1,548	#	#	#
Independent $30,000-$49,999	Weighted size	243,926	52,508	54,669	40,737	27,373	13,887	10,118	5,512	6,473
	SE weighted	9,477	5,026	4,435	3,397	3,226	2,059	1,850	1,271	1,920
Independent $50,000 or more	Weighted size	284,455	64,563	69,855	40,290	25,260	17,940	11,217	8,005	10,538
	SE weighted	12,355	5,127	4,968	3,966	3,312	2,706	2,265	1,805	2,369

Table H-14.—Number of students enrolled in postsecondary institutions by family income and tuition for senior/fourth- or fifth-year students—Continued

Income		$8000-$8999	$9000-$9999	$10000-$10999	$11000-$11999	$12000-$12999	$13000-$13999	$14000-$14999	$15000 or More	Missing
TOTAL	Weighted size	46,611	51,674	32,518	36,093	32,060	26,237	31,141	218,842	162,298
	SE weighted	5,306	6,425	3,543	3,690	4,165	4,614	5,232	11,444	8,045
Dependent less than $10,000	Weighted size	#	#	#	#	#	#	#	6,160	#
	SE weighted	#	#	#	#	#	#	#	1,229	#
Dependent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	7,864	3,643
	SE weighted	#	#	#	#	#	#	#	1,356	1,003
Dependent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	12,930	8,364
	SE weighted	#	#	#	#	#	#	#	1,678	1,558
Dependent $30,000-$39,999	Weighted size	#	#	#	#	#	#	#	13,067	8,791
	SE weighted	#	#	#	#	#	#	#	1,831	1,720
Dependent $40,000-$49,999	Weighted size	#	#	#	#	#	#	#	13,466	8,100
	SE weighted	#	#	#	#	#	#	#	1,568	1,572
Dependent $50,000-$59,999	Weighted size	#	#	#	#	#	#	3,533	14,568	8,524
	SE weighted	#	#	#	#	#	#	878	1,972	1,664
Dependent $60,000-$69,999	Weighted size	4,358	#	#	#	#	#	#	17,198	5,074
	SE weighted	1,350	#	#	#	#	#	#	1,988	1,168
Dependent $70,000-$79,999	Weighted size	#	#	#	#	#	#	#	18,319	3,886
	SE weighted	#	#	#	#	#	#	#	2,344	924
Dependent $80,000-$99,999	Weighted size	#	#	4,868	#	#	#	3,925	28,908	9,615
	SE weighted	#	#	1,623	#	#	#	1,224	2,995	1,561
Dependent $100,000 or more	Weighted size	5,495	5,268	3,354	6,012	4,674	#	6,375	60,181	16,857
	SE weighted	1,354	666	954	1,184	835	#	1,866	4,591	2,551
Independent less than $5,000	Weighted size	#	#	#	#	#	#	#	8,297	11,292
	SE weighted	#	#	#	#	#	#	#	1,533	1,738
Independent $5,000-$9,999	Weighted size	#	#	#	#	#	#	#	4,900	8,363
	SE weighted	#	#	#	#	#	#	#	1,697	1,606
Independent $10,000-$19,999	Weighted size	#	#	#	#	#	#	#	8,046	20,233
	SE weighted	#	#	#	#	#	#	#	1,442	2,999
Independent $20,000-$29,999	Weighted size	#	#	#	#	#	#	#	#	9,516
	SE weighted	#	#	#	#	#	#	#	#	1,672
Independent $30,000-$49,999	Weighted size	#	#	#	#	#	#	#	#	17,990
	SE weighted	#	#	#	#	#	#	#	#	2,329
Independent $50,000 or more	Weighted size	#	#	#	#	#	#	#	#	20,671
	SE weighted	#	#	#	#	#	#	#	#	2,440

# Insufficient number of cases for reliable estimation.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Appendix I

Design Effects

Statistical Analysis Considerations
Design Effect Tables

A. Design effect tables for undergraduate students based on the study weight
B. Design effect tables for undergraduate students based on the CATI weights
C. Design effect tables for graduate students (excluding first-professional students) based on the study weights
D. Design effect tables for graduate students (excluding first-professional students) based on the CATI weights
E. Design effect tables for first-professional students based on the study weights
F. Design effect tables for first-professional students based on the CATI weights

Statistical Analysis Considerations

The NPSAS:2000 sampling design was a stratified two-stage design. A stratified sample of postsecondary institutions was selected with probabilities proportional to a composite measure of size at the first stage, and a stratified systematic sample of students was selected from sample institutions at the second stage. At the first stage, about 17 percent of the eligible institutions were selected, but the institution sampling rates varied considerably by institutional sampling strata.[1] At the second stage, baccalaureate candidates were sampled at higher rates than other students. Because of this complex sampling design, statistical analyses should be conducted using software that properly accounts for the complex survey design.

Most commonly-used statistical computing packages (e.g., SAS and SPSS) assume that the data were obtained from a simple random sample; that is, they assume that the observations are independent and identically distributed. When the data have been collected using a complex sampling design, the simple random sampling assumption usually leads to an underestimate of the sampling variance, which would lead to artificially small confidence intervals and liberal hypothesis test results (i.e., rejecting the null hypothesis when it is in fact true more often than indicated by the nominal Type I error level) (Carlson et al, 1993).

Statistical strategies that have been developed to address this issue include: first-order Taylor series expansion of the variance equation; balanced repeated replication; and the Jackknife approach (see, e.g., Wolter, 1985). Special-purpose software packages that have been developed for analysis of complex sample survey data include SUDAAN, WesVar, and Stata. Evaluations of the relative performances of these packages are reported by Cohen (1997). SUDAAN is a commercial product developed by RTI; information regarding the features of this package and its lease terms is available from the website http://www.rti.org/sudaan. WesVar is a product of Westat, Inc.; information regarding the features of this package and its lease terms is available from the website http://www.westat.com/wesvar. NCES has also developed a software tool called the Data Analysis System (DAS) for analysis of complex survey data. Information about using the DAS is available from the website http://nces.ed.gov/das.

When computing standard errors using Taylor Series approximation in SUDAAN or Stata these are the variables the analyst should use in specifying analysis strata and analysis PSUs:

• **ANALSTR, ANALPSU:**	Analysis strata and analysis PSUs for analyses involving all students
• **UANALSTR, UANALPSU:**	Analysis strata and analysis PSUs for analyses involving undergraduate students
• **GANALSTR, GANALPSU:**	Analysis strata and analysis PSUs for analyses involving graduate/first-professional students
• **BANALSTR, BANALPSU:**	Analysis strata and analysis PSUs for analyses involving baccalaureate recipients

Additionally the analyst should specify the following weights:

• **STUDYWT0:**	Study weight for all students
• **STUDYWT1:**	Study weight for undergraduates
• **STUDYWT2:**	Study weight for graduates/first-professionals
• **CATIWT0:**	CATI weight for all students
• **CATIWT1:**	CATI weight for undergraduates
• **CATIWT2:**	CATI weight for graduates/first-professionals

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[1] From about five percent for private for-profit 2-year-or-more institutions to 100 percent for public doctorate-granting high ed and public first-professional-degree high ed. See Chapter 2 for more details.

Below is an example of generic SUDAAN code to produce estimates and standard errors using Taylor Series approximation for CATI variables for undergraduates. The symbols /* and */ in the code indicate the beginning and end of a comment. Note that the dataset must be sorted by analysis strata and analysis PSUs.

```
proc descript data=/* insert filename*/ design=wr;
nest uanalstr uanalpsu;
weight catiwt1;
var /*insert CATI variables*/;
subpopn /* insert domain of interest if domain is a subset of undergraduates*/;
print nsum mean semean  / style=nchs;
run;
```

SUDAAN and WesVar can be used to produce standard errors using balanced repeated replication (BRR), which is described in Section 6.3.2. The analyst should specify the following BRR weights:

- **BRSWT01–BRSWT52:** Study BRR weights for all students
- **BRSGWT01–BRSGWT60:** Study BRR weights for graduate/first-professional students
- **BRCWT01–BRCWT52:** CATI BRR weights for all students
- **BRCGWT01–BRCGWT60:** CATI BRR weights for graduate/first-professional students
- **BRCBWT01–BRCBWT64:** CATI BRR weights for baccalaureate students.

Below is an example of generic SUDAAN code to produce estimates and standard errors using BRR for CATI variables for undergraduates. The symbols /* and */ in the code indicate the beginning and end of a comment. Note that the dataset does not need to be sorted.

```
proc descript data=/* insert filename*/ design=brr;
repwgt brcwt01-brcwt52;
weight catiwt1;
var /*insert CATI variables*/;
subpopn /* insert domain of interest if domain is a subset of undergraduates*/;
print nsum mean semean  / style=nchs;
run;
```

If one must perform a quick analysis of NPSAS:2000 data without using one of the software packages for analysis of complex survey data, the design effects tables in this appendix can be used to make approximate adjustments to the standard errors of survey statistics computed using the standard software packages that assume simple random sampling designs. For example, table I.2 shows design effects based on the study weights for male undergraduate students. If one had computed a statistic (e.g., mean Pell grant amount) for this domain of students using the study weights, then the summary statistics from table I.2 suggest that the standard error computed from the statistical software package should be multiplied by a survey design effect of about 4.12 (the median for this domain). However, the range of design effects shown in table I.2 for this domain is from 2.02 to 6.03. Therefore, one cannot be confident regarding the actual design-based standard error without performing the analysis using one of the software packages specifically designed for analysis of data from complex sample surveys.

References

B.L. Carlson, A.E. Johnson, and S.B. Cohen,. "An Evaluation of the Use of Personal Computers for Variance Estimation with Complex Survey Data." *Journal of Official Statistics*, 1993: 9(4) 795-814.

S.B. Cohen. "An Evaluation of Alternative PC-Based Software Packages Developed for the Analysis of Complex Survey Data." *The American Statistician*, 1997, 57(13): 285-292.

K. Wolter. *Introduction to Variance Estimation*, Springer-Verlag: New York, NY, 1985.

Section A

Design effect tables for undergraduate students based on the study weights

Table I-1.—Design effects based on the study weights for all undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	55.32	0.64	0.22	2.86	8.18
Received any federal aid	39.05	0.56	0.22	2.57	6.61
Received any non-federal aid	38.28	0.63	0.22	2.91	8.45
Received any state grant aid	13.62	0.57	0.15	3.73	13.94
Received any institution grant aid	16.66	0.43	0.17	2.55	6.52
Received any aid from other sources	17.47	0.37	0.17	2.16	4.67
Received any grant aid	44.37	0.58	0.22	2.59	6.72
Received any loan aid	28.81	0.52	0.20	2.56	6.58
Received any work-study aid	5.44	0.20	0.10	1.94	3.77
Received any other type of aid	6.92	0.28	0.11	2.44	5.97
Received a Pell grant	22.63	0.46	0.19	2.47	6.08
Received a Stafford loan	27.60	0.51	0.20	2.57	6.60
Received a subsidized loan	23.17	0.48	0.19	2.52	6.34
Received an unsubsidized loan	14.89	0.39	0.16	2.46	6.05
Received grant aid only	22.08	0.53	0.19	2.87	8.24
Married	21.63	0.40	0.18	2.15	4.62
U.S. citizen	93.33	0.26	0.11	2.37	5.60
Enrolled exclusively full-time	49.27	0.60	0.22	2.69	7.22
Lived on campus	15.72	0.39	0.16	2.38	5.66
Applied for federal financial aid	49.29	0.56	0.22	2.52	6.35
SUMMARY STATISTICS					
Minimum	†	†	†	1.94	3.77
25th percentile	†	†	†	2.41	5.82
Median	†	†	†	2.54	6.43
75th percentile	†	†	†	2.64	6.97
Maximum	†	†	†	3.73	13.94

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-2.—Design effects based on the study weights for male undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	52.47	0.75	0.35	2.17	4.71
Received any federal aid	35.24	0.68	0.33	2.05	4.20
Received any non-federal aid	37.28	0.68	0.34	2.03	4.12
Received any state grant aid	11.60	0.55	0.22	2.46	6.03
Received any institution grant aid	15.56	0.49	0.25	1.97	3.87
Received any aid from other sources	18.58	0.47	0.27	1.74	3.01
Received any grant aid	40.29	0.68	0.34	1.99	3.98
Received any loan aid	27.31	0.65	0.31	2.10	4.39
Received any work-study aid	4.69	0.21	0.15	1.42	2.02
Received any other type of aid	8.77	0.35	0.20	1.76	3.09
Received a Pell grant	18.99	0.54	0.27	1.97	3.87
Received a Stafford loan	26.14	0.64	0.30	2.08	4.34
Received a subsidized loan	21.60	0.61	0.29	2.15	4.60
Received an unsubsidized loan	14.30	0.54	0.24	2.24	5.03
Received grant aid only	19.69	0.59	0.28	2.14	4.57
Married	20.20	0.48	0.28	1.71	2.92
U.S. citizen	92.66	0.35	0.18	1.91	3.65
Enrolled exclusively full-time	50.13	0.76	0.35	2.19	4.81
Lived on campus	16.59	0.48	0.26	1.85	3.43
Applied for federal financial aid	45.03	0.70	0.35	2.03	4.12
SUMMARY STATISTICS					
Minimum	†	†	†	1.42	2.02
25th percentile	†	†	†	1.88	3.54
Median	†	†	†	2.03	4.12
75th percentile	†	†	†	2.14	4.59
Maximum	†	†	†	2.46	6.03

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-3.—Design effects based on the study weights for female undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	57.54	0.73	0.29	2.53	6.38
Received any federal aid	42.02	0.68	0.29	2.34	5.46
Received any non-federal aid	39.06	0.73	0.29	2.57	6.61
Received any state grant aid	15.19	0.66	0.21	3.15	9.93
Received any institution grant aid	17.51	0.48	0.22	2.16	4.65
Received any aid from other sources	16.60	0.40	0.22	1.85	3.41
Received any grant aid	47.54	0.66	0.29	2.26	5.12
Received any loan aid	29.98	0.60	0.27	2.25	5.07
Received any work-study aid	6.03	0.24	0.14	1.76	3.08
Received any other type of aid	5.48	0.29	0.13	2.14	4.60
Received a Pell grant	25.47	0.56	0.26	2.18	4.75
Received a Stafford loan	28.74	0.60	0.27	2.26	5.10
Received a subsidized loan	24.39	0.54	0.25	2.13	4.53
Received an unsubsidized loan	15.35	0.42	0.21	1.97	3.88
Received grant aid only	23.93	0.60	0.25	2.39	5.69
Married	22.74	0.47	0.25	1.92	3.70
U.S. citizen	93.85	0.30	0.14	2.15	4.61
Enrolled exclusively full-time	48.60	0.65	0.29	2.21	4.87
Lived on campus	15.05	0.42	0.21	1.99	3.95
Applied for federal financial aid	52.60	0.66	0.29	2.26	5.12
SUMMARY STATISTICS					
Minimum	†	†	†	1.76	3.08
25th percentile	†	†	†	2.06	4.24
Median	†	†	†	2.19	4.81
75th percentile	†	†	†	2.30	5.29
Maximum	†	†	†	3.15	9.93

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-4.—Design effects based on the study weights for students at less-than-2-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	75.64	2.98	0.60	4.98	24.76
Received any federal aid	66.95	2.97	0.66	4.52	20.44
Received any non-federal aid	23.77	2.01	0.59	3.38	11.43
Received any state grant aid	4.48	1.49	0.29	5.16	26.58
Received any institution grant aid	4.28	1.11	0.28	3.92	15.35
Received any aid from other sources	15.06	2.31	0.50	4.63	21.44
Received any grant aid	58.59	2.20	0.69	3.21	10.29
Received any loan aid	42.81	5.38	0.69	7.79	60.69
Received any work-study aid	0.79	0.35	0.12	2.85	8.13
Received any other type of aid	11.79	2.27	0.45	5.04	25.41
Received a Pell grant	53.93	2.58	0.70	3.71	13.77
Received a Stafford loan	41.28	5.41	0.69	7.88	62.03
Received a subsidized loan	40.15	5.31	0.68	7.76	60.26
Received an unsubsidized loan	32.04	5.58	0.65	8.57	73.46
Received grant aid only	25.41	4.24	0.61	6.97	48.64
Married	26.21	1.54	0.61	2.51	6.31
U.S. citizen	89.08	2.12	0.44	4.87	23.68
Enrolled exclusively full-time	78.36	3.29	0.57	5.72	32.72
Lived on campus	1.36	0.36	0.16	2.23	4.96
Applied for federal financial aid	73.94	2.57	0.61	4.20	17.62
SUMMARY STATISTICS					
Minimum	†	†	†	2.23	4.96
25th percentile	†	†	†	3.55	12.60
Median	†	†	†	4.75	22.56
75th percentile	†	†	†	6.35	40.68
Maximum	†	†	†	8.57	73.46

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-5.—Design effects based on the study weights for undergraduate students at public 2-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	39.62	1.10	0.52	2.13	4.52
Received any federal aid	22.82	0.75	0.45	1.67	2.80
Received any non-federal aid	28.58	1.19	0.48	2.47	6.11
Received any state grant aid	9.73	1.13	0.31	3.60	12.94
Received any institution grant aid	7.95	0.62	0.29	2.17	4.71
Received any aid from other sources	13.94	0.65	0.37	1.77	3.15
Received any grant aid	33.60	1.05	0.50	2.10	4.42
Received any loan aid	9.64	0.54	0.31	1.74	3.02
Received any work-study aid	1.41	0.19	0.13	1.54	2.38
Received any other type of aid	4.59	0.48	0.22	2.16	4.68
Received a Pell grant	17.77	0.65	0.41	1.61	2.58
Received a Stafford loan	9.09	0.52	0.31	1.72	2.95
Received a subsidized loan	7.50	0.47	0.28	1.67	2.80
Received an unsubsidized loan	4.77	0.33	0.23	1.46	2.12
Received grant aid only	25.32	1.04	0.46	2.26	5.09
Married	28.47	0.76	0.48	1.58	2.49
U.S. citizen	92.96	0.49	0.27	1.80	3.22
Enrolled exclusively full-time	29.41	0.82	0.48	1.69	2.87
Lived on campus	4.98	0.38	0.23	1.63	2.67
Applied for federal financial aid	34.21	0.82	0.50	1.62	2.62
SUMMARY STATISTICS					
Minimum	†	†	†	1.46	2.12
25th percentile	†	†	†	1.63	2.64
Median	†	†	†	1.73	2.99
75th percentile	†	†	†	2.14	4.60
Maximum	†	†	†	3.60	12.94

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-6.—Design effects based on the study weights for undergraduate students at 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	69.62	0.80	0.39	2.06	4.23
Received any federal aid	52.41	1.07	0.42	2.54	6.45
Received any non-federal aid	51.29	1.13	0.42	2.67	7.12
Received any state grant aid	20.18	0.97	0.34	2.85	8.12
Received any institution grant aid	26.39	1.18	0.37	3.18	10.09
Received any aid from other sources	21.97	0.72	0.35	2.07	4.27
Received any grant aid	56.82	0.92	0.42	2.20	4.84
Received any loan aid	43.19	1.10	0.42	2.64	6.95
Received any work-study aid	10.87	0.68	0.26	2.59	6.71
Received any other type of aid	8.34	0.50	0.23	2.12	4.51
Received a Pell grant	26.97	1.16	0.38	3.09	9.57
Received a Stafford loan	41.37	1.13	0.42	2.71	7.36
Received a subsidized loan	34.46	1.01	0.40	2.50	6.26
Received an unsubsidized loan	20.73	0.87	0.34	2.54	6.46
Received grant aid only	21.26	0.82	0.35	2.37	5.59
Married	18.86	0.76	0.33	2.30	5.31
U.S. citizen	94.74	0.47	0.19	2.49	6.19
Enrolled exclusively full-time	62.46	1.22	0.41	2.97	8.84
Lived on campus	25.39	1.32	0.37	3.59	12.90
Applied for federal financial aid	62.14	1.13	0.41	2.76	7.64
SUMMARY STATISTICS					
Minimum	†	†	†	2.06	4.23
25th percentile	†	†	†	2.33	5.45
Median	†	†	†	2.57	6.58
75th percentile	†	†	†	2.81	7.88
Maximum	†	†	†	3.59	12.90

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-7.—Design effects based on the study weights for undergraduate students at 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	64.71	0.49	0.35	1.42	2.01
Received any federal aid	47.96	0.53	0.36	1.46	2.12
Received any non-federal aid	46.31	0.55	0.36	1.51	2.27
Received any state grant aid	15.96	0.43	0.27	1.63	2.65
Received any institution grant aid	25.54	0.52	0.32	1.64	2.70
Received any aid from other sources	20.23	0.34	0.29	1.16	1.34
Received any grant aid	49.47	0.46	0.36	1.26	1.58
Received any loan aid	43.09	0.57	0.36	1.59	2.52
Received any work-study aid	8.85	0.32	0.21	1.53	2.35
Received any other type of aid	8.33	0.29	0.20	1.42	2.01
Received a Pell grant	21.34	0.40	0.30	1.34	1.79
Received a Stafford loan	41.26	0.56	0.36	1.55	2.40
Received a subsidized loan	33.70	0.52	0.34	1.51	2.28
Received an unsubsidized loan	20.44	0.41	0.29	1.39	1.93
Received grant aid only	18.20	0.39	0.28	1.38	1.90
Married	11.64	0.31	0.23	1.32	1.75
U.S. citizen	93.45	0.25	0.18	1.38	1.91
Enrolled exclusively full-time	66.18	0.47	0.34	1.37	1.88
Lived on campus	28.89	0.51	0.33	1.56	2.42
Applied for federal financial aid	57.64	0.55	0.36	1.52	2.30
SUMMARY STATISTICS					
Minimum	†	†	†	1.16	1.34
25th percentile	†	†	†	1.38	1.89
Median	†	†	†	1.44	2.07
75th percentile	†	†	†	1.54	2.38
Maximum	†	†	†	1.64	2.70

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-8.—Design effects based on the study weights for undergraduate students at public 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	62.96	1.19	0.55	2.17	4.72
Received any federal aid	48.15	1.46	0.57	2.57	6.58
Received any non-federal aid	41.17	1.33	0.56	2.38	5.65
Received any state grant aid	17.73	1.16	0.43	2.66	7.10
Received any institution grant aid	13.90	0.91	0.39	2.32	5.40
Received any aid from other sources	17.60	0.89	0.43	2.06	4.23
Received any grant aid	48.29	1.19	0.57	2.10	4.41
Received any loan aid	38.12	1.48	0.55	2.67	7.15
Received any work-study aid	6.70	0.73	0.28	2.58	6.64
Received any other type of aid	6.23	0.46	0.27	1.67	2.78
Received a Pell grant	27.53	1.44	0.51	2.84	8.06
Received a Stafford loan	36.63	1.51	0.55	2.76	7.62
Received a subsidized loan	29.82	1.31	0.52	2.52	6.36
Received an unsubsidized loan	18.96	1.10	0.45	2.47	6.11
Received grant aid only	20.33	0.87	0.46	1.91	3.64
Married	17.66	1.03	0.43	2.37	5.63
U.S. citizen	94.14	0.71	0.27	2.66	7.05
Enrolled exclusively full-time	59.31	1.75	0.56	3.14	9.85
Lived on campus	18.65	1.82	0.44	4.11	16.87
Applied for federal financial aid	58.93	1.55	0.56	2.77	7.68
SUMMARY STATISTICS					
Minimum	†	†	†	1.67	2.78
25th percentile	†	†	†	2.25	5.06
Median	†	†	†	2.54	6.47
75th percentile	†	†	†	2.72	7.39
Maximum	†	†	†	4.11	16.87

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-9.—Design effects based on the study weights for undergraduate students at public 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	62.48	0.56	0.40	1.38	1.91
Received any federal aid	46.14	0.58	0.42	1.38	1.91
Received any non-federal aid	41.77	0.61	0.41	1.47	2.17
Received any state grant aid	15.36	0.48	0.30	1.61	2.58
Received any institution grant aid	19.16	0.46	0.33	1.41	1.98
Received any aid from other sources	18.40	0.37	0.32	1.13	1.29
Received any grant aid	45.65	0.48	0.42	1.16	1.34
Received any loan aid	41.14	0.65	0.41	1.58	2.49
Received any work-study aid	6.08	0.32	0.20	1.59	2.52
Received any other type of aid	7.71	0.31	0.22	1.37	1.89
Received a Pell grant	21.83	0.46	0.35	1.34	1.78
Received a Stafford loan	39.55	0.62	0.41	1.51	2.28
Received a subsidized loan	31.68	0.56	0.39	1.44	2.07
Received an unsubsidized loan	20.68	0.46	0.34	1.36	1.84
Received grant aid only	18.10	0.45	0.32	1.40	1.96
Married	11.94	0.33	0.27	1.22	1.48
U.S. citizen	93.92	0.29	0.20	1.43	2.05
Enrolled exclusively full-time	64.16	0.53	0.40	1.33	1.77
Lived on campus	25.10	0.53	0.36	1.45	2.10
Applied for federal financial aid	55.97	0.62	0.42	1.50	2.24
SUMMARY STATISTICS					
Minimum	†	†	†	1.13	1.29
25th percentile	†	†	†	1.35	1.81
Median	†	†	†	1.40	1.97
75th percentile	†	†	†	1.49	2.21
Maximum	†	†	†	1.61	2.58

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-10.—Design effects based on the study weights for undergraduate students at private not-for-profit 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	78.56	1.08	0.52	2.08	4.31
Received any federal aid	58.12	1.68	0.62	2.70	7.31
Received any non-federal aid	64.85	1.71	0.60	2.84	8.06
Received any state grant aid	23.45	1.61	0.54	3.01	9.04
Received any institution grant aid	43.15	2.40	0.63	3.84	14.72
Received any aid from other sources	27.82	1.13	0.57	2.00	4.02
Received any grant aid	68.25	1.55	0.59	2.63	6.92
Received any loan aid	50.00	1.77	0.63	2.80	7.83
Received any work-study aid	16.46	1.23	0.47	2.62	6.87
Received any other type of aid	11.18	0.96	0.40	2.40	5.76
Received a Pell grant	26.22	1.90	0.56	3.41	11.64
Received a Stafford loan	47.72	1.80	0.63	2.86	8.17
Received a subsidized loan	40.68	1.66	0.62	2.68	7.17
Received an unsubsidized loan	23.10	1.41	0.53	2.65	7.00
Received grant aid only	22.50	1.51	0.53	2.86	8.19
Married	20.48	1.12	0.51	2.19	4.80
U.S. citizen	95.55	0.55	0.26	2.10	4.40
Enrolled exclusively full-time	66.68	1.59	0.60	2.67	7.15
Lived on campus	34.43	1.98	0.60	3.30	10.87
Applied for federal financial aid	66.44	1.76	0.60	2.95	8.69
SUMMARY STATISTICS					
Minimum	†	†	†	2.00	4.02
25th percentile	†	†	†	2.51	6.32
Median	†	†	†	2.69	7.24
75th percentile	†	†	†	2.90	8.44
Maximum	†	†	†	3.84	14.72

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-11.—Design effects based on the study weights for undergraduate students at private not-for-profit 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	72.85	0.98	0.66	1.49	2.22
Received any federal aid	54.58	1.22	0.74	1.65	2.73
Received any non-federal aid	62.84	1.10	0.72	1.54	2.37
Received any state grant aid	18.16	0.97	0.57	1.69	2.87
Received any institution grant aid	48.76	1.48	0.74	2.00	3.99
Received any aid from other sources	26.91	0.81	0.66	1.23	1.52
Received any grant aid	63.39	1.07	0.71	1.49	2.23
Received any loan aid	50.19	1.14	0.74	1.54	2.38
Received any work-study aid	18.92	0.88	0.58	1.51	2.29
Received any other type of aid	10.55	0.71	0.46	1.55	2.40
Received a Pell grant	19.53	0.79	0.59	1.35	1.83
Received a Stafford loan	47.48	1.20	0.74	1.62	2.64
Received a subsidized loan	41.06	1.23	0.73	1.68	2.83
Received an unsubsidized loan	19.59	0.90	0.59	1.53	2.34
Received grant aid only	18.56	0.74	0.58	1.28	1.64
Married	10.56	0.78	0.46	1.71	2.93
U.S. citizen	91.75	0.50	0.41	1.23	1.52
Enrolled exclusively full-time	73.53	0.96	0.65	1.47	2.16
Lived on campus	42.69	1.39	0.73	1.90	3.59
Applied for federal financial aid	63.73	1.10	0.71	1.54	2.36
SUMMARY STATISTICS					
Minimum	†	†	†	1.23	1.52
25th percentile	†	†	†	1.48	2.19
Median	†	†	†	1.54	2.36
75th percentile	†	†	†	1.67	2.78
Maximum	†	†	†	2.00	3.99

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-12.—Design effects based on the study weights for undergraduate students at private for-profit institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	85.12	1.27	0.47	2.69	7.24
Received any federal aid	80.48	1.25	0.53	2.38	5.66
Received any non-federal aid	28.42	2.23	0.60	3.71	13.79
Received any state grant aid	8.97	1.91	0.38	5.01	25.11
Received any institution grant aid	6.35	1.45	0.32	4.46	19.85
Received any aid from other sources	15.41	1.49	0.48	3.10	9.61
Received any grant aid	59.86	1.87	0.65	2.86	8.19
Received any loan aid	66.74	2.60	0.63	4.14	17.14
Received any work-study aid	1.00	0.34	0.13	2.56	6.57
Received any other type of aid	12.96	1.38	0.45	3.09	9.56
Received a Pell grant	52.06	2.10	0.66	3.15	9.94
Received a Stafford loan	65.24	2.62	0.63	4.13	17.02
Received a subsidized loan	61.46	2.55	0.65	3.94	15.54
Received an unsubsidized loan	52.02	2.59	0.66	3.89	15.16
Received grant aid only	15.14	2.28	0.48	4.77	22.79
Married	23.93	1.24	0.57	2.18	4.75
U.S. citizen	90.92	1.36	0.38	3.57	12.73
Enrolled exclusively full-time	77.38	2.43	0.56	4.37	19.07
Lived on campus	3.44	0.67	0.24	2.74	7.52
Applied for federal financial aid	85.03	1.25	0.47	2.64	6.98
SUMMARY STATISTICS					
Minimum	†	†	†	2.18	4.75
25th percentile	†	†	†	2.72	7.38
Median	†	†	†	3.36	11.33
75th percentile	†	†	†	4.13	17.08
Maximum	†	†	†	5.01	25.11

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-13.—Design effects based on the study weights for dependent undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	58.91	0.64	0.31	2.09	4.35
Received any federal aid	43.67	0.60	0.31	1.95	3.80
Received any non-federal aid	42.25	0.65	0.31	2.13	4.52
Received any state grant aid	16.12	0.47	0.23	2.07	4.27
Received any institution grant aid	24.14	0.58	0.27	2.19	4.81
Received any aid from other sources	16.48	0.37	0.23	1.60	2.56
Received any grant aid	46.12	0.65	0.31	2.08	4.33
Received any loan aid	34.87	0.58	0.30	1.95	3.81
Received any work-study aid	8.90	0.33	0.18	1.89	3.56
Received any other type of aid	7.77	0.26	0.17	1.58	2.49
Received a Pell grant	19.44	0.50	0.25	2.01	4.05
Received a Stafford loan	33.37	0.58	0.29	1.96	3.86
Received a subsidized loan	25.98	0.52	0.27	1.91	3.65
Received an unsubsidized loan	14.74	0.35	0.22	1.59	2.52
Received grant aid only	20.27	0.48	0.25	1.92	3.68
Married	†	†	†	†	†
U.S. citizen	93.88	0.27	0.15	1.82	3.32
Enrolled exclusively full-time	66.91	0.59	0.29	2.00	4.01
Lived on campus	28.62	0.60	0.28	2.13	4.53
Applied for federal financial aid	56.69	0.61	0.31	1.97	3.88
SUMMARY STATISTICS					
Minimum	†	†	†	1.58	2.49
25th percentile	†	†	†	1.89	3.56
Median	†	†	†	1.96	3.86
75th percentile	†	†	†	2.08	4.33
Maximum	†	†	†	2.19	4.81

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-14.—Design effects based on the study weights for independent undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	51.86	0.89	0.32	2.75	7.58
Received any federal aid	34.59	0.75	0.31	2.44	5.95
Received any non-federal aid	34.44	0.89	0.31	2.92	8.55
Received any state grant aid	11.21	0.92	0.20	4.53	20.52
Received any institution grant aid	9.43	0.41	0.19	2.19	4.78
Received any aid from other sources	18.42	0.54	0.25	2.18	4.75
Received any grant aid	42.68	0.79	0.32	2.47	6.12
Received any loan aid	22.96	0.67	0.27	2.46	6.05
Received any work-study aid	2.11	0.15	0.09	1.58	2.50
Received any other type of aid	6.10	0.42	0.15	2.74	7.49
Received a Pell grant	25.72	0.62	0.28	2.20	4.86
Received a Stafford loan	22.04	0.65	0.27	2.44	5.94
Received a subsidized loan	20.46	0.63	0.26	2.43	5.92
Received an unsubsidized loan	15.03	0.59	0.23	2.57	6.59
Received grant aid only	23.83	0.81	0.27	2.97	8.82
Married	42.52	0.60	0.32	1.87	3.51
U.S. citizen	92.79	0.34	0.17	2.02	4.07
Enrolled exclusively full-time	32.23	0.81	0.30	2.70	7.26
Lived on campus	3.26	0.21	0.11	1.82	3.31
Applied for federal financial aid	42.14	0.73	0.32	2.30	5.28
SUMMARY STATISTICS					
Minimum	†	†	†	1.58	2.50
25th percentile	†	†	†	2.18	4.77
Median	†	†	†	2.44	5.95
75th percentile	†	†	†	2.72	7.38
Maximum	†	†	†	4.53	20.52

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-15.—Design effects based on the study weights for white non-Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	53.35	0.65	0.27	2.39	5.72
Received any federal aid	36.00	0.59	0.26	2.27	5.17
Received any non-federal aid	38.22	0.59	0.26	2.23	4.99
Received any state grant aid	12.80	0.42	0.18	2.31	5.32
Received any institution grant aid	16.70	0.47	0.20	2.31	5.34
Received any aid from other sources	18.87	0.40	0.21	1.90	3.62
Received any grant aid	41.45	0.57	0.27	2.15	4.61
Received any loan aid	29.12	0.57	0.25	2.32	5.40
Received any work-study aid	5.44	0.24	0.12	1.98	3.94
Received any other type of aid	7.08	0.25	0.14	1.83	3.35
Received a Pell grant	17.34	0.40	0.20	1.95	3.79
Received a Stafford loan	27.96	0.56	0.24	2.32	5.38
Received a subsidized loan	22.58	0.50	0.23	2.21	4.89
Received an unsubsidized loan	15.43	0.38	0.20	1.96	3.82
Received grant aid only	20.14	0.40	0.22	1.83	3.34
Married	22.81	0.48	0.23	2.13	4.53
U.S. citizen	97.86	0.16	0.08	1.99	3.96
Enrolled exclusively full-time	49.51	0.67	0.27	2.49	6.18
Lived on campus	17.13	0.44	0.20	2.14	4.60
Applied for federal financial aid	46.15	0.62	0.27	2.32	5.36
SUMMARY STATISTICS					
Minimum	†	†	†	1.83	3.34
25th percentile	†	†	†	1.97	3.88
Median	†	†	†	2.18	4.75
75th percentile	†	†	†	2.31	5.35
Maximum	†	†	†	2.49	6.18

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-16.—Design effects based on the study weights for black non-Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	69.41	1.41	0.60	2.37	5.61
Received any federal aid	53.61	1.57	0.65	2.43	5.89
Received any non-federal aid	41.85	2.15	0.64	3.37	11.36
Received any state grant aid	18.82	2.58	0.51	5.10	26.03
Received any institution grant aid	14.70	1.04	0.46	2.26	5.10
Received any aid from other sources	16.74	0.93	0.48	1.91	3.66
Received any grant aid	58.20	1.51	0.64	2.37	5.60
Received any loan aid	35.81	1.99	0.62	3.21	10.28
Received any work-study aid	5.89	0.51	0.30	1.66	2.77
Received any other type of aid	7.85	0.70	0.35	2.00	3.99
Received a Pell grant	39.61	1.20	0.63	1.89	3.59
Received a Stafford loan	34.72	1.95	0.62	3.16	9.96
Received a subsidized loan	31.07	1.77	0.60	2.96	8.76
Received an unsubsidized loan	19.64	1.23	0.51	2.38	5.69
Received grant aid only	28.32	2.29	0.58	3.92	15.40
Married	17.81	0.91	0.50	1.84	3.39
U.S. citizen	93.14	0.55	0.33	1.69	2.85
Enrolled exclusively full-time	49.60	1.46	0.65	2.26	5.12
Lived on campus	17.29	1.49	0.49	3.04	9.26
Applied for federal financial aid	64.81	1.30	0.62	2.11	4.43
SUMMARY STATISTICS					
Minimum	†	†	†	1.66	2.77
25th percentile	†	†	†	1.96	3.83
Median	†	†	†	2.37	5.61
75th percentile	†	†	†	3.10	9.61
Maximum	†	†	†	5.10	26.03

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-17.—Design effects based on the study weights for Asian undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	44.08	1.60	0.91	1.76	3.10
Received any federal aid	32.43	1.52	0.86	1.77	3.13
Received any non-federal aid	32.06	1.27	0.86	1.48	2.19
Received any state grant aid	11.94	0.84	0.60	1.42	2.01
Received any institution grant aid	18.76	1.07	0.72	1.49	2.23
Received any aid from other sources	9.34	0.74	0.53	1.39	1.92
Received any grant aid	37.25	1.44	0.89	1.62	2.62
Received any loan aid	21.85	1.33	0.76	1.76	3.08
Received any work-study aid	5.50	0.62	0.42	1.47	2.16
Received any other type of aid	4.58	0.60	0.38	1.56	2.44
Received a Pell grant	22.01	1.26	0.76	1.65	2.72
Received a Stafford loan	20.78	1.33	0.74	1.78	3.18
Received a subsidized loan	18.91	1.32	0.72	1.83	3.35
Received an unsubsidized loan	8.52	1.07	0.51	2.09	4.38
Received grant aid only	18.36	1.05	0.71	1.47	2.17
Married	17.37	1.02	0.70	1.46	2.14
U.S. citizen	62.39	1.40	0.89	1.57	2.48
Enrolled exclusively full-time	48.64	1.67	0.92	1.82	3.30
Lived on campus	14.62	0.92	0.65	1.43	2.03
Applied for federal financial aid	40.54	1.51	0.90	1.67	2.80
SUMMARY STATISTICS					
Minimum	†	†	†	1.39	1.92
25th percentile	†	†	†	1.47	2.17
Median	†	†	†	1.60	2.55
75th percentile	†	†	†	1.77	3.12
Maximum	†	†	†	2.09	4.38

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-18.—Design effects based on the study weights for Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	58.30	1.61	0.64	2.50	6.26
Received any federal aid	45.03	1.77	0.65	2.72	7.42
Received any non-federal aid	37.95	1.27	0.63	2.01	4.03
Received any state grant aid	14.06	1.21	0.45	2.66	7.09
Received any institution grant aid	17.39	1.04	0.49	2.10	4.40
Received any aid from other sources	13.98	0.85	0.45	1.88	3.54
Received any grant aid	50.29	1.56	0.65	2.39	5.73
Received any loan aid	24.37	1.23	0.56	2.19	4.81
Received any work-study aid	5.34	0.48	0.29	1.62	2.63
Received any other type of aid	6.16	0.71	0.31	2.25	5.06
Received a Pell grant	34.80	1.72	0.62	2.77	7.67
Received a Stafford loan	22.69	1.17	0.55	2.15	4.60
Received a subsidized loan	21.05	1.12	0.53	2.10	4.42
Received an unsubsidized loan	11.03	0.87	0.41	2.12	4.49
Received grant aid only	28.29	1.49	0.59	2.53	6.38
Married	21.40	0.88	0.54	1.65	2.73
U.S. citizen	86.53	0.78	0.45	1.75	3.07
Enrolled exclusively full-time	46.99	1.69	0.65	2.59	6.68
Lived on campus	7.47	0.54	0.34	1.56	2.45
Applied for federal financial aid	55.33	1.66	0.65	2.56	6.57
SUMMARY STATISTICS					
Minimum	†	†	†	1.56	2.45
25th percentile	†	†	†	1.94	3.79
Median	†	†	†	2.17	4.71
75th percentile	†	†	†	2.54	6.48
Maximum	†	†	†	2.77	7.67

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-19.—Design effects based on the study weights for low-income undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	72.76	0.77	0.38	2.04	4.15
Received any federal aid	64.40	0.83	0.40	2.06	4.25
Received any non-federal aid	46.26	1.04	0.42	2.46	6.05
Received any state grant aid	24.34	0.97	0.36	2.68	7.19
Received any institution grant aid	21.60	0.76	0.35	2.20	4.85
Received any aid from other sources	13.81	0.47	0.29	1.61	2.58
Received any grant aid	68.55	0.75	0.39	1.92	3.68
Received any loan aid	37.82	0.91	0.41	2.22	4.91
Received any work-study aid	8.89	0.40	0.24	1.67	2.78
Received any other type of aid	6.16	0.33	0.20	1.64	2.68
Received a Pell grant	58.59	0.83	0.42	1.99	3.97
Received a Stafford loan	36.26	0.91	0.41	2.23	4.98
Received a subsidized loan	35.48	0.90	0.40	2.22	4.93
Received an unsubsidized loan	15.42	0.67	0.30	2.21	4.89
Received grant aid only	29.61	0.94	0.39	2.43	5.89
Married	6.45	0.35	0.21	1.70	2.87
U.S. citizen	89.10	0.53	0.26	2.01	4.05
Enrolled exclusively full-time	59.30	0.87	0.41	2.11	4.45
Lived on campus	14.22	0.61	0.29	2.07	4.30
Applied for federal financial aid	73.16	0.78	0.37	2.08	4.33
SUMMARY STATISTICS					
Minimum	†	†	†	1.61	2.58
25th percentile	†	†	†	1.96	3.83
Median	†	†	†	2.08	4.31
75th percentile	†	†	†	2.22	4.92
Maximum	†	†	†	2.68	7.19

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Section B

Design effect tables for undergraduate students based on the CATI weights

Table I-20.—Design effects based on the CATI weights for all undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	8.27	0.26	0.15	1.76	3.09
Worked while in school	80.32	0.39	0.21	1.85	3.43
Worked 20 or more hours per week while in school	66.09	0.49	0.25	1.94	3.77
Worked multiple jobs in 1999-2000	21.39	0.33	0.22	1.49	2.23
Principal job in 1999-2000 related to major	33.56	0.44	0.26	1.68	2.83
Born outside the U.S.	11.58	0.41	0.18	2.30	5.29
Registered to vote	80.65	0.38	0.23	1.68	2.81
Voted in the 2000 elections	75.73	0.43	0.25	1.74	3.02
Has a disability	9.28	0.24	0.16	1.53	2.36
Attended more than one institution in 1999-2000	6.19	0.16	0.13	1.29	1.66
Has dependents other than a spouse	27.38	0.49	0.24	2.07	4.29
Has children under 5 years old	11.90	0.31	0.17	1.80	3.25
Has children aged 5 to 12 years old	12.83	0.33	0.18	1.83	3.35
U.S. Armed Forces veteran	4.48	0.21	0.11	1.82	3.32
Received Bachelor's degree in 1999-2000	8.00	0.15	0.14	1.07	1.14
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	33.62	0.46	0.26	1.75	3.07
Ever attended a community college	73.34	0.48	0.24	1.95	3.80
Did community service during 1999-2000	34.65	0.44	0.26	1.67	2.79
SUMMARY STATISTICS					
Minimum	†	†	†	1.07	1.14
25th percentile	†	†	†	1.67	2.79
Median	†	†	†	1.75	3.08
75th percentile	†	†	†	1.85	3.43
Maximum	†	†	†	2.30	5.29

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-21.—Design effects based on the CATI weights for male undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	8.81	0.40	0.24	1.68	2.83
Worked while in school	81.40	0.54	0.33	1.66	2.74
Worked 20 or more hours per week while in school	68.39	0.66	0.39	1.67	2.79
Worked multiple jobs in 1999-2000	21.02	0.50	0.34	1.45	2.10
Principal job in 1999-2000 related to major	33.36	0.66	0.41	1.60	2.57
Born outside the U.S.	12.45	0.54	0.29	1.88	3.53
Registered to vote	81.28	0.55	0.35	1.56	2.44
Voted in the 2000 elections	75.38	0.64	0.39	1.64	2.68
Has a disability	8.74	0.38	0.24	1.58	2.50
Attended more than one institution in 1999-2000	5.67	0.22	0.19	1.12	1.26
Has dependents other than a spouse	21.66	0.60	0.34	1.74	3.03
Has children under 5 years old	10.49	0.43	0.26	1.65	2.74
Has children aged 5 to 12 years old	9.89	0.39	0.25	1.55	2.39
U.S. Armed Forces veteran	8.45	0.41	0.24	1.72	2.96
Received Bachelor's degree in 1999-2000	7.77	0.22	0.22	0.97	0.93
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	25.67	0.65	0.38	1.69	2.87
Ever attended a community college	71.83	0.60	0.39	1.54	2.36
Did community service during 1999-2000	31.73	0.62	0.41	1.51	2.28
SUMMARY STATISTICS					
Minimum	†	†	†	0.97	0.93
25th percentile	†	†	†	1.54	2.36
Median	†	†	†	1.62	2.63
75th percentile	†	†	†	1.68	2.83
Maximum	†	†	†	1.88	3.53

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-22.—Design effects based on the CATI weights for female undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	7.86	0.27	0.18	1.48	2.19
Worked while in school	79.48	0.46	0.28	1.64	2.69
Worked 20 or more hours per week while in school	64.33	0.57	0.33	1.71	2.91
Worked multiple jobs in 1999-2000	21.67	0.41	0.28	1.45	2.11
Principal job in 1999-2000 related to major	33.71	0.54	0.34	1.59	2.54
Born outside the U.S.	10.91	0.49	0.22	2.21	4.88
Registered to vote	80.17	0.46	0.29	1.55	2.39
Voted in the 2000 elections	75.99	0.47	0.32	1.47	2.17
Has a disability	9.71	0.32	0.20	1.58	2.51
Attended more than one institution in 1999-2000	6.59	0.20	0.17	1.17	1.37
Has dependents other than a spouse	31.81	0.58	0.32	1.82	3.30
Has children under 5 years old	12.98	0.40	0.23	1.69	2.87
Has children aged 5 to 12 years old	15.10	0.43	0.25	1.72	2.96
U.S. Armed Forces veteran	1.45	0.13	0.08	1.49	2.22
Received Bachelor's degree in 1999-2000	8.19	0.18	0.19	0.96	0.92
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	39.72	0.53	0.35	1.51	2.28
Ever attended a community college	74.51	0.58	0.31	1.84	3.40
Did community service during 1999-2000	36.90	0.55	0.35	1.59	2.54
SUMMARY STATISTICS					
Minimum	†	†	†	0.96	0.92
25th percentile	†	†	†	1.48	2.19
Median	†	†	†	1.59	2.53
75th percentile	†	†	†	1.71	2.91
Maximum	†	†	†	2.21	4.88

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-23.—Design effects based on the CATI weights for students at less-than-2-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	2.70	0.57	0.28	2.03	4.14
Worked while in school	67.07	1.99	0.82	2.41	5.83
Worked 20 or more hours per week while in school	59.77	2.12	0.86	2.46	6.05
Worked multiple jobs in 1999-2000	15.78	1.44	0.64	2.25	5.08
Principal job in 1999-2000 related to major	21.29	1.97	0.75	2.61	6.84
Born outside the U.S.	15.89	2.41	0.67	3.59	12.89
Registered to vote	73.33	1.30	0.85	1.52	2.32
Voted in the 2000 elections	65.50	1.98	0.94	2.12	4.48
Has a disability	12.52	0.85	0.58	1.46	2.12
Attended more than one institution in 1999-2000	3.75	0.37	0.33	1.12	1.25
Has dependents other than a spouse	51.92	2.00	0.86	2.32	5.38
Has children under 5 years old	28.19	1.39	0.80	1.74	3.02
Has children aged 5 to 12 years old	25.64	1.48	0.78	1.90	3.62
U.S. Armed Forces veteran	6.33	1.10	0.44	2.51	6.32
Received Bachelor's degree in 1999-2000	0.15	0.08	0.07	1.15	1.33
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	68.23	1.51	0.87	1.74	3.01
Ever attended a community college	53.61	3.20	0.92	3.48	12.08
Did community service during 1999-2000	15.82	1.71	0.68	2.51	6.28
SUMMARY STATISTICS					
Minimum	†	†	†	1.12	1.25
25th percentile	†	†	†	1.74	3.01
Median	†	†	†	2.18	4.78
75th percentile	†	†	†	2.51	6.28
Maximum	†	†	†	3.59	12.89

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-24.—Design effects based on the CATI weights for undergraduate students at public 2-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	9.52	0.43	0.38	1.13	1.28
Worked while in school	84.21	0.67	0.48	1.39	1.95
Worked 20 or more hours per week while in school	77.64	0.75	0.55	1.38	1.89
Worked multiple jobs in 1999-2000	19.37	0.58	0.52	1.12	1.26
Principal job in 1999-2000 related to major	35.37	0.81	0.64	1.26	1.59
Born outside the U.S.	12.93	0.76	0.45	1.70	2.88
Registered to vote	79.77	0.68	0.56	1.22	1.48
Voted in the 2000 elections	77.61	0.77	0.59	1.31	1.72
Has a disability	10.57	0.45	0.40	1.11	1.22
Attended more than one institution in 1999-2000	7.23	0.32	0.34	0.95	0.90
Has dependents other than a spouse	35.31	0.90	0.62	1.44	2.09
Has children under 5 years old	14.78	0.58	0.47	1.24	1.54
Has children aged 5 to 12 years old	16.94	0.63	0.50	1.28	1.63
U.S. Armed Forces veteran	5.99	0.41	0.32	1.27	1.62
Received Bachelor's degree in 1999-2000	0.49	0.08	0.09	0.84	0.71
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	28.51	0.75	0.61	1.22	1.49
Ever attended a community college	100.00	0.00	0.00	#	#
Did community service during 1999-2000	28.62	0.74	0.61	1.21	1.46
SUMMARY STATISTICS					
Minimum	†	†	†	0.84	0.71
25th percentile	†	†	†	1.13	1.28
Median	†	†	†	1.24	1.54
75th percentile	†	†	†	1.31	1.72
Maximum	†	†	†	1.70	2.88

The design effect is undefined because the estimate is 100.00.

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-25.—Design effects based on the CATI weights for undergraduate students at 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	9.67	0.68	0.29	2.34	5.48
Worked while in school	80.12	0.78	0.39	1.98	3.93
Worked 20 or more hours per week while in school	59.40	1.13	0.48	2.33	5.44
Worked multiple jobs in 1999-2000	23.02	0.64	0.41	1.56	2.43
Principal job in 1999-2000 related to major	35.03	0.70	0.49	1.43	2.05
Born outside the U.S.	9.10	0.70	0.29	2.39	5.70
Registered to vote	80.95	0.72	0.41	1.75	3.06
Voted in the 2000 elections	75.33	0.85	0.46	1.86	3.45
Has a disability	8.39	0.37	0.27	1.34	1.80
Attended more than one institution in 1999-2000	5.22	0.24	0.22	1.11	1.23
Has dependents other than a spouse	23.41	0.94	0.41	2.28	5.21
Has children under 5 years old	9.99	0.57	0.30	1.94	3.75
Has children aged 5 to 12 years old	10.82	0.56	0.31	1.83	3.35
U.S. Armed Forces veteran	3.63	0.34	0.19	1.80	3.25
Received Bachelor's degree in 1999-2000	14.40	0.47	0.34	1.37	1.87
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	37.20	0.88	0.50	1.77	3.12
Ever attended a community college	49.75	1.07	0.51	2.09	4.37
Did community service during 1999-2000	41.17	0.76	0.51	1.50	2.25
SUMMARY STATISTICS					
Minimum	†	†	†	1.11	1.23
25th percentile	†	†	†	1.50	2.25
Median	†	†	†	1.82	3.30
75th percentile	†	†	†	2.09	4.37
Maximum	†	†	†	2.39	5.70

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-26.—Design effects based on the CATI weights for undergraduate students at 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	5.97	0.28	0.20	1.37	1.87
Worked while in school	75.30	0.53	0.37	1.43	2.04
Worked 20 or more hours per week while in school	51.84	0.63	0.43	1.46	2.12
Worked multiple jobs in 1999-2000	23.78	0.46	0.36	1.25	1.57
Principal job in 1999-2000 related to major	31.04	0.53	0.41	1.29	1.67
Born outside the U.S.	10.73	0.40	0.27	1.47	2.16
Registered to vote	83.35	0.50	0.34	1.48	2.20
Voted in the 2000 elections	75.02	0.53	0.40	1.33	1.77
Has a disability	7.25	0.28	0.22	1.25	1.56
Attended more than one institution in 1999-2000	5.76	0.19	0.20	0.94	0.89
Has dependents other than a spouse	13.18	0.38	0.29	1.30	1.70
Has children under 5 years old	5.75	0.26	0.20	1.30	1.70
Has children aged 5 to 12 years old	5.76	0.27	0.20	1.33	1.78
U.S. Armed Forces veteran	2.16	0.15	0.13	1.14	1.31
Received Bachelor's degree in 1999-2000	17.18	0.25	0.32	0.78	0.60
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	34.15	0.54	0.42	1.28	1.63
Ever attended a community college	45.19	0.65	0.44	1.47	2.16
Did community service during 1999-2000	43.37	0.52	0.44	1.18	1.39
SUMMARY STATISTICS					
Minimum	†	†	†	0.78	0.60
25th percentile	†	†	†	1.25	1.56
Median	†	†	†	1.30	1.70
75th percentile	†	†	†	1.43	2.04
Maximum	†	†	†	1.48	2.20

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-27.—Design effects based on the CATI weights for undergraduate students at public 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	7.15	0.73	0.34	2.15	4.61
Worked while in school	80.07	1.12	0.53	2.13	4.55
Worked 20 or more hours per week while in school	63.20	1.62	0.64	2.53	6.39
Worked multiple jobs in 1999-2000	23.35	0.82	0.56	1.46	2.14
Principal job in 1999-2000 related to major	32.42	0.80	0.64	1.25	1.57
Born outside the U.S.	10.48	1.12	0.42	2.68	7.19
Registered to vote	80.40	0.99	0.56	1.77	3.12
Voted in the 2000 elections	74.05	1.19	0.62	1.91	3.65
Has a disability	8.19	0.46	0.36	1.27	1.62
Attended more than one institution in 1999-2000	5.02	0.36	0.29	1.26	1.58
Has dependents other than a spouse	23.15	1.25	0.55	2.26	5.11
Has children under 5 years old	10.23	0.80	0.40	1.99	3.95
Has children aged 5 to 12 years old	10.47	0.72	0.41	1.78	3.17
U.S. Armed Forces veteran	3.22	0.38	0.24	1.60	2.57
Received Bachelor's degree in 1999-2000	12.42	0.55	0.43	1.27	1.60
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	32.25	1.38	0.64	2.16	4.65
Ever attended a community college	50.35	1.39	0.68	2.04	4.15
Did community service during 1999-2000	36.97	0.88	0.66	1.33	1.76
SUMMARY STATISTICS					
Minimum	†	†	†	1.25	1.57
25th percentile	†	†	†	1.33	1.76
Median	†	†	†	1.85	3.41
75th percentile	†	†	†	2.15	4.61
Maximum	†	†	†	2.68	7.19

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-28.—Design effects based on the CATI weights for undergraduate students at public 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	5.33	0.31	0.22	1.41	2.00
Worked while in school	75.88	0.61	0.42	1.47	2.15
Worked 20 or more hours per week while in school	54.35	0.70	0.49	1.43	2.06
Worked multiple jobs in 1999-2000	23.48	0.50	0.41	1.21	1.47
Principal job in 1999-2000 related to major	30.70	0.59	0.47	1.27	1.61
Born outside the U.S.	10.12	0.47	0.31	1.52	2.32
Registered to vote	83.55	0.57	0.39	1.47	2.15
Voted in the 2000 elections	74.93	0.59	0.46	1.30	1.70
Has a disability	7.53	0.32	0.26	1.23	1.52
Attended more than one institution in 1999-2000	5.90	0.20	0.23	0.88	0.78
Has dependents other than a spouse	13.55	0.41	0.33	1.22	1.50
Has children under 5 years old	6.04	0.30	0.23	1.29	1.65
Has children aged 5 to 12 years old	5.93	0.29	0.23	1.25	1.57
U.S. Armed Forces veteran	2.39	0.17	0.15	1.13	1.28
Received Bachelor's degree in 1999-2000	16.64	0.28	0.36	0.77	0.60
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	31.03	0.59	0.47	1.26	1.58
Ever attended a community college	47.79	0.73	0.51	1.43	2.06
Did community service during 1999-2000	41.25	0.56	0.50	1.12	1.25
SUMMARY STATISTICS					
Minimum	†	†	†	0.77	0.60
25th percentile	†	†	†	1.21	1.47
Median	†	†	†	1.26	1.60
75th percentile	†	†	†	1.43	2.06
Maximum	†	†	†	1.52	2.32

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-29.—Design effects based on the CATI weights for undergraduate students at private not-for-profit 4-year non-doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	13.06	1.20	0.49	2.45	6.00
Worked while in school	80.18	1.01	0.58	1.73	2.99
Worked 20 or more hours per week while in school	54.29	1.56	0.73	2.13	4.53
Worked multiple jobs in 1999-2000	22.57	1.04	0.61	1.70	2.89
Principal job in 1999-2000 related to major	38.74	1.22	0.75	1.62	2.62
Born outside the U.S.	7.13	0.65	0.40	1.63	2.67
Registered to vote	81.72	1.03	0.61	1.70	2.89
Voted in the 2000 elections	77.15	1.13	0.67	1.69	2.87
Has a disability	8.65	0.59	0.41	1.43	2.04
Attended more than one institution in 1999-2000	5.50	0.29	0.33	0.86	0.75
Has dependents other than a spouse	23.75	1.44	0.62	2.31	5.36
Has children under 5 years old	9.67	0.80	0.43	1.83	3.36
Has children aged 5 to 12 years old	11.28	0.88	0.47	1.89	3.59
U.S. Armed Forces veteran	4.18	0.59	0.30	1.98	3.93
Received Bachelor's degree in 1999-2000	17.06	0.76	0.55	1.39	1.92
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	44.26	1.11	0.77	1.44	2.07
Ever attended a community college	48.90	1.68	0.77	2.19	4.78
Did community service during 1999-2000	47.16	1.36	0.77	1.76	3.10
SUMMARY STATISTICS					
Minimum	†	†	†	0.86	0.75
25th percentile	†	†	†	1.62	2.62
Median	†	†	†	1.71	2.94
75th percentile	†	†	†	1.98	3.93
Maximum	†	†	†	2.45	6.00

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-30.—Design effects based on the CATI weights for undergraduate students at private not-for-profit 4-year doctoral/first-professional institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	8.28	0.61	0.48	1.27	1.60
Worked while in school	73.20	0.99	0.78	1.27	1.62
Worked 20 or more hours per week while in school	42.72	1.41	0.88	1.60	2.57
Worked multiple jobs in 1999-2000	24.89	1.07	0.76	1.40	1.97
Principal job in 1999-2000 related to major	32.32	1.18	0.86	1.37	1.89
Born outside the U.S.	12.99	0.78	0.62	1.26	1.59
Registered to vote	82.57	1.11	0.72	1.54	2.37
Voted in the 2000 elections	75.34	1.18	0.82	1.44	2.07
Has a disability	6.20	0.55	0.43	1.29	1.67
Attended more than one institution in 1999-2000	5.25	0.46	0.39	1.18	1.39
Has dependents other than a spouse	11.81	0.90	0.57	1.60	2.56
Has children under 5 years old	4.70	0.51	0.37	1.37	1.89
Has children aged 5 to 12 years old	5.14	0.64	0.39	1.64	2.70
U.S. Armed Forces veteran	1.32	0.24	0.21	1.18	1.39
Received Bachelor's degree in 1999-2000	19.13	0.55	0.69	0.79	0.63
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	45.82	1.22	0.92	1.33	1.76
Ever attended a community college	35.55	1.43	0.88	1.63	2.67
Did community service during 1999-2000	51.26	1.32	0.92	1.43	2.06
SUMMARY STATISTICS					
Minimum	†	†	†	0.79	0.63
25th percentile	†	†	†	1.27	1.60
Median	†	†	†	1.37	1.89
75th percentile	†	†	†	1.54	2.37
Maximum	†	†	†	1.64	2.70

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-31.—Design effects based on the CATI weights for undergraduate students at private for-profit institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	4.02	0.65	0.33	1.99	3.94
Worked while in school	74.58	1.76	0.73	2.41	5.80
Worked 20 or more hours per week while in school	67.12	1.99	0.79	2.53	6.39
Worked multiple jobs in 1999-2000	20.99	1.44	0.68	2.10	4.43
Principal job in 1999-2000 related to major	24.94	1.54	0.76	2.04	4.16
Born outside the U.S.	13.52	1.70	0.60	2.85	8.15
Registered to vote	74.05	1.06	0.80	1.32	1.75
Voted in the 2000 elections	64.89	1.85	0.89	2.08	4.34
Has a disability	11.96	0.93	0.55	1.71	2.92
Attended more than one institution in 1999-2000	3.65	0.44	0.31	1.42	2.03
Has dependents other than a spouse	44.65	2.24	0.82	2.72	7.40
Has children under 5 years old	25.39	1.56	0.74	2.11	4.47
Has children aged 5 to 12 years old	19.99	1.16	0.68	1.71	2.92
U.S. Armed Forces veteran	6.45	0.77	0.42	1.85	3.41
Received Bachelor's degree in 1999-2000	2.40	0.40	0.25	1.56	2.44
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	57.66	1.61	0.88	1.83	3.37
Ever attended a community college	75.28	1.63	0.75	2.16	4.67
Did community service during 1999-2000	18.62	1.46	0.69	2.13	4.52
SUMMARY STATISTICS					
Minimum	†	†	†	1.32	1.75
25th percentile	†	†	†	1.71	2.92
Median	†	†	†	2.06	4.25
75th percentile	†	†	†	2.16	4.67
Maximum	†	†	†	2.85	8.15

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-32.—Design effects based on the CATI weights for dependent undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	3.31	0.20	0.13	1.52	2.32
Worked while in school	78.07	0.50	0.30	1.67	2.80
Worked 20 or more hours per week while in school	56.44	0.66	0.36	1.82	3.33
Worked multiple jobs in 1999-2000	25.66	0.48	0.32	1.52	2.30
Principal job in 1999-2000 related to major	25.08	0.46	0.33	1.40	1.96
Born outside the U.S.	9.81	0.45	0.22	2.03	4.13
Registered to vote	76.22	0.51	0.33	1.55	2.41
Voted in the 2000 elections	71.55	0.56	0.35	1.58	2.48
Has a disability	6.71	0.25	0.18	1.37	1.89
Attended more than one institution in 1999-2000	7.04	0.22	0.18	1.17	1.36
Has dependents other than a spouse	†	†	†	†	†
Has children under 5 years old	†	†	†	†	†
Has children aged 5 to 12 years old	†	†	†	†	†
U.S. Armed Forces veteran	0.34	0.08	0.04	1.96	3.84
Received Bachelor's degree in 1999-2000	8.99	0.21	0.21	1.04	1.08
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	36.45	0.58	0.36	1.60	2.55
Ever attended a community college	59.66	0.75	0.37	2.02	4.08
Did community service during 1999-2000	35.63	0.55	0.36	1.53	2.34
SUMMARY STATISTICS					
Minimum	†	†	†	1.04	1.08
25th percentile	†	†	†	1.40	1.96
Median	†	†	†	1.55	2.41
75th percentile	†	†	†	1.82	3.33
Maximum	†	†	†	2.03	4.13

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-33.—Design effects based on the CATI weights for independent undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	13.37	0.43	0.27	1.63	2.66
Worked while in school	82.62	0.54	0.30	1.83	3.34
Worked 20 or more hours per week while in school	75.99	0.60	0.34	1.78	3.17
Worked multiple jobs in 1999-2000	17.00	0.40	0.30	1.35	1.83
Principal job in 1999-2000 related to major	42.23	0.71	0.40	1.75	3.07
Born outside the U.S.	13.39	0.53	0.28	1.90	3.59
Registered to vote	85.20	0.47	0.30	1.55	2.40
Voted in the 2000 elections	80.02	0.54	0.34	1.57	2.46
Has a disability	11.94	0.40	0.26	1.56	2.44
Attended more than one institution in 1999-2000	5.32	0.19	0.18	1.06	1.13
Has dependents other than a spouse	55.53	0.69	0.39	1.78	3.17
Has children under 5 years old	24.65	0.57	0.34	1.66	2.75
Has children aged 5 to 12 years old	26.58	0.55	0.35	1.55	2.41
U.S. Armed Forces veteran	8.85	0.40	0.23	1.73	2.98
Received Bachelor's degree in 1999-2000	6.99	0.21	0.20	1.03	1.06
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	30.73	0.64	0.38	1.68	2.81
Ever attended a community college	87.32	0.39	0.27	1.43	2.04
Did community service during 1999-2000	33.66	0.62	0.39	1.60	2.55
SUMMARY STATISTICS					
Minimum	†	†	†	1.03	1.06
25th percentile	†	†	†	1.55	2.40
Median	†	†	†	1.61	2.60
75th percentile	†	†	†	1.75	3.07
Maximum	†	†	†	1.90	3.59

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-34.—Design effects based on the CATI weights for white non-Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	9.34	0.32	0.18	1.75	3.05
Worked while in school	81.68	0.39	0.25	1.58	2.50
Worked 20 or more hours per week while in school	66.32	0.56	0.30	1.85	3.43
Worked multiple jobs in 1999-2000	22.57	0.37	0.27	1.38	1.91
Principal job in 1999-2000 related to major	34.46	0.51	0.31	1.62	2.63
Born outside the U.S.	3.76	0.24	0.12	1.90	3.62
Registered to vote	81.38	0.41	0.26	1.58	2.49
Voted in the 2000 elections	76.75	0.48	0.28	1.72	2.95
Has a disability	9.83	0.29	0.19	1.55	2.41
Attended more than one institution in 1999-2000	6.23	0.19	0.15	1.22	1.48
Has dependents other than a spouse	24.05	0.55	0.27	2.03	4.11
Has children under 5 years old	9.87	0.33	0.19	1.72	2.97
Has children aged 5 to 12 years old	11.25	0.37	0.20	1.83	3.36
U.S. Armed Forces veteran	4.79	0.24	0.14	1.73	2.98
Received Bachelor's degree in 1999-2000	8.88	0.21	0.18	1.15	1.32
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	29.67	0.45	0.30	1.50	2.25
Ever attended a community college	71.66	0.61	0.30	2.08	4.32
Did community service during 1999-2000	35.97	0.49	0.32	1.55	2.42
SUMMARY STATISTICS					
Minimum	†	†	†	1.15	1.32
25th percentile	†	†	†	1.55	2.41
Median	†	†	†	1.67	2.79
75th percentile	†	†	†	1.83	3.36
Maximum	†	†	†	2.08	4.32

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-35.—Design effects based on the CATI weights for black non-Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	7.31	0.59	0.41	1.46	2.12
Worked while in school	81.10	1.31	0.62	2.12	4.49
Worked 20 or more hours per week while in school	69.88	1.52	0.73	2.10	4.41
Worked multiple jobs in 1999-2000	20.89	1.02	0.64	1.59	2.52
Principal job in 1999-2000 related to major	32.07	1.22	0.75	1.63	2.67
Born outside the U.S.	10.75	0.94	0.49	1.91	3.63
Registered to vote	85.41	0.81	0.59	1.38	1.90
Voted in the 2000 elections	77.72	1.20	0.70	1.72	2.96
Has a disability	8.71	0.57	0.45	1.27	1.62
Attended more than one institution in 1999-2000	5.91	0.44	0.37	1.20	1.44
Has dependents other than a spouse	45.27	1.31	0.78	1.69	2.84
Has children under 5 years old	21.39	0.94	0.65	1.44	2.07
Has children aged 5 to 12 years old	22.72	1.02	0.67	1.52	2.31
U.S. Armed Forces veteran	4.86	0.52	0.35	1.49	2.23
Received Bachelor's degree in 1999-2000	5.31	0.37	0.35	1.06	1.11
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	41.98	1.15	0.80	1.44	2.07
Ever attended a community college	74.94	1.86	0.69	2.68	7.20
Did community service during 1999-2000	32.92	1.16	0.76	1.53	2.33
SUMMARY STATISTICS					
Minimum	†	†	†	1.06	1.11
25th percentile	†	†	†	1.44	2.07
Median	†	†	†	1.52	2.32
75th percentile	†	†	†	1.72	2.96
Maximum	†	†	†	2.68	7.20

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-36.—Design effects based on the CATI weights for Asian undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	3.86	0.67	0.46	1.45	2.10
Worked while in school	67.18	1.90	1.14	1.67	2.78
Worked 20 or more hours per week while in school	48.49	1.84	1.22	1.52	2.30
Worked multiple jobs in 1999-2000	16.25	1.29	0.89	1.44	2.07
Principal job in 1999-2000 related to major	27.75	1.44	1.11	1.29	1.67
Born outside the U.S.	68.79	1.65	1.15	1.44	2.07
Registered to vote	66.69	1.82	1.49	1.22	1.50
Voted in the 2000 elections	58.40	2.05	1.58	1.30	1.68
Has a disability	4.48	0.76	0.50	1.50	2.26
Attended more than one institution in 1999-2000	7.56	0.67	0.63	1.05	1.11
Has dependents other than a spouse	17.71	1.44	0.91	1.57	2.47
Has children under 5 years old	6.99	0.92	0.62	1.48	2.19
Has children aged 5 to 12 years old	8.02	0.97	0.66	1.47	2.17
U.S. Armed Forces veteran	1.24	0.53	0.28	1.87	3.49
Received Bachelor's degree in 1999-2000	8.99	0.56	0.69	0.82	0.68
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	49.26	2.10	1.26	1.67	2.81
Ever attended a community college	74.16	1.55	1.09	1.43	2.04
Did community service during 1999-2000	32.49	1.74	1.17	1.48	2.20
SUMMARY STATISTICS					
Minimum	†	†	†	0.82	0.68
25th percentile	†	†	†	1.30	1.68
Median	†	†	†	1.46	2.13
75th percentile	†	†	†	1.52	2.30
Maximum	†	†	†	1.87	3.49

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-37.—Design effects based on the CATI weights for Hispanic undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	5.76	0.58	0.37	1.56	2.44
Worked while in school	78.78	1.21	0.66	1.84	3.37
Worked 20 or more hours per week while in school	69.39	1.36	0.75	1.81	3.28
Worked multiple jobs in 1999-2000	17.94	1.00	0.62	1.61	2.59
Principal job in 1999-2000 related to major	32.85	1.20	0.84	1.43	2.04
Born outside the U.S.	24.78	1.30	0.77	1.69	2.84
Registered to vote	74.33	1.51	0.84	1.81	3.27
Voted in the 2000 elections	71.58	1.39	0.91	1.53	2.35
Has a disability	8.00	0.61	0.44	1.38	1.91
Attended more than one institution in 1999-2000	5.07	0.38	0.35	1.07	1.13
Has dependents other than a spouse	32.85	1.19	0.75	1.58	2.48
Has children under 5 years old	16.56	1.02	0.61	1.67	2.80
Has children aged 5 to 12 years old	14.27	0.90	0.57	1.57	2.47
U.S. Armed Forces veteran	3.63	0.51	0.31	1.62	2.63
Received Bachelor's degree in 1999-2000	5.61	0.38	0.37	1.02	1.03
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	39.72	1.23	0.88	1.39	1.93
Ever attended a community college	79.26	1.56	0.72	2.16	4.65
Did community service during 1999-2000	29.93	1.37	0.82	1.66	2.76
SUMMARY STATISTICS					
Minimum	†	†	†	1.02	1.03
25th percentile	†	†	†	1.43	2.04
Median	†	†	†	1.59	2.54
75th percentile	†	†	†	1.69	2.84
Maximum	†	†	†	2.16	4.65

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-38.—Design effects based on the CATI weights for low-income undergraduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	2.70	0.26	0.17	1.58	2.51
Worked while in school	76.63	0.75	0.44	1.72	2.95
Worked 20 or more hours per week while in school	60.38	0.82	0.51	1.62	2.63
Worked multiple jobs in 1999-2000	23.46	0.70	0.44	1.60	2.57
Principal job in 1999-2000 related to major	26.14	0.70	0.47	1.47	2.17
Born outside the U.S.	16.64	0.82	0.40	2.04	4.15
Registered to vote	77.49	0.71	0.47	1.49	2.21
Voted in the 2000 elections	71.04	0.78	0.52	1.48	2.19
Has a disability	11.55	0.46	0.33	1.40	1.95
Attended more than one institution in 1999-2000	6.11	0.28	0.24	1.13	1.28
Has dependents other than a spouse	23.00	0.69	0.43	1.61	2.60
Has children under 5 years old	12.98	0.51	0.35	1.47	2.15
Has children aged 5 to 12 years old	8.58	0.50	0.29	1.70	2.89
U.S. Armed Forces veteran	2.88	0.29	0.17	1.66	2.77
Received Bachelor's degree in 1999-2000	8.21	0.29	0.28	1.02	1.05
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	37.88	0.89	0.53	1.70	2.88
Ever attended a community college	72.83	0.86	0.48	1.79	3.21
Did community service during 1999-2000	30.69	0.75	0.50	1.50	2.25
SUMMARY STATISTICS					
Minimum	†	†	†	1.02	1.05
25th percentile	†	†	†	1.47	2.17
Median	†	†	†	1.59	2.54
75th percentile	†	†	†	1.70	2.88
Maximum	†	†	†	2.04	4.15

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Section C

Design effect tables for graduate students (excluding first-professional students) based on the study weights

Table I-39.—Design effects based on the study weights for all graduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	56.12	0.67	0.48	1.40	1.96
Received any federal aid	23.55	0.67	0.41	1.64	2.68
Received any non-federal aid	44.94	0.66	0.48	1.38	1.90
Received any state grant aid	2.27	0.20	0.14	1.41	2.00
Received any institution grant aid	19.55	0.58	0.38	1.51	2.27
Received any aid from other sources	22.69	0.62	0.41	1.54	2.36
Received any grant aid	37.30	0.66	0.47	1.41	1.99
Received any loan aid	24.03	0.67	0.41	1.63	2.64
Received any work-study aid	1.64	0.18	0.12	1.50	2.25
Received any other type of aid	14.08	0.48	0.34	1.43	2.04
Received any assistantship	12.34	0.46	0.32	1.45	2.10
Received a Stafford loan	22.84	0.66	0.41	1.63	2.65
Received a subsidized loan	20.54	0.62	0.39	1.58	2.51
Received an unsubsidized loan	16.98	0.63	0.36	1.72	2.96
Received grant aid only	21.70	0.57	0.40	1.43	2.05
Married	45.55	0.72	0.48	1.49	2.23
U.S. citizen	87.00	0.53	0.33	1.62	2.63
Enrolled exclusively full-time	35.19	0.76	0.46	1.65	2.72
Lived on campus	6.05	0.37	0.23	1.61	2.58
Applied for federal financial aid	28.24	0.73	0.44	1.66	2.77
SUMMARY STATISTICS					
Minimum	†	†	†	1.38	1.90
25th percentile	†	†	†	1.43	2.04
Median	†	†	†	1.52	2.32
75th percentile	†	†	†	1.63	2.64
Maximum	†	†	†	1.72	2.96

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-40.—Design effects based on the study weights for graduate students at public 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	53.54	0.89	0.64	1.41	1.99
Received any federal aid	20.10	0.73	0.51	1.44	2.06
Received any non-federal aid	44.62	0.87	0.63	1.37	1.88
Received any state grant aid	3.03	0.32	0.22	1.45	2.09
Received any institution grant aid	19.93	0.65	0.51	1.27	1.62
Received any aid from other sources	19.63	0.73	0.51	1.45	2.11
Received any grant aid	36.07	0.85	0.61	1.40	1.95
Received any loan aid	20.25	0.71	0.51	1.39	1.94
Received any work-study aid	1.34	0.14	0.15	0.97	0.94
Received any other type of aid	17.33	0.66	0.48	1.37	1.88
Received any assistantship	15.72	0.63	0.46	1.36	1.86
Received a Stafford loan	19.37	0.70	0.50	1.39	1.95
Received a subsidized loan	17.33	0.66	0.48	1.38	1.90
Received an unsubsidized loan	12.89	0.63	0.43	1.49	2.21
Received grant aid only	20.47	0.76	0.51	1.47	2.17
Married	45.39	0.89	0.63	1.41	1.98
U.S. citizen	87.10	0.62	0.43	1.46	2.12
Enrolled exclusively full-time	33.67	0.82	0.60	1.36	1.85
Lived on campus	5.46	0.34	0.29	1.19	1.41
Applied for federal financial aid	24.62	0.84	0.55	1.53	2.34
SUMMARY STATISTICS					
Minimum	†	†	†	0.97	0.94
25th percentile	†	†	†	1.37	1.87
Median	†	†	†	1.40	1.95
75th percentile	†	†	†	1.45	2.10
Maximum	†	†	†	1.53	2.34

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-41.—Design effects based on the study weights for graduate students at private not-for-profit 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	60.66	1.05	0.77	1.37	1.87
Received any federal aid	28.14	1.25	0.70	1.77	3.15
Received any non-federal aid	47.20	1.10	0.78	1.40	1.96
Received any state grant aid	1.15	0.19	0.17	1.11	1.23
Received any institution grant aid	20.65	1.08	0.63	1.70	2.88
Received any aid from other sources	27.35	1.13	0.70	1.62	2.63
Received any grant aid	40.51	1.12	0.77	1.45	2.11
Received any loan aid	29.07	1.29	0.71	1.81	3.29
Received any work-study aid	2.16	0.41	0.23	1.82	3.30
Received any other type of aid	10.10	0.70	0.47	1.47	2.17
Received any assistantship	8.24	0.69	0.43	1.60	2.56
Received a Stafford loan	27.53	1.25	0.70	1.79	3.21
Received a subsidized loan	24.93	1.19	0.68	1.76	3.10
Received an unsubsidized loan	22.20	1.21	0.65	1.85	3.43
Received grant aid only	24.29	0.92	0.67	1.38	1.89
Married	45.32	1.25	0.78	1.60	2.55
U.S. citizen	86.82	0.92	0.53	1.74	3.01
Enrolled exclusively full-time	36.42	1.36	0.75	1.80	3.24
Lived on campus	7.37	0.81	0.41	1.97	3.88
Applied for federal financial aid	33.12	1.25	0.74	1.70	2.88
SUMMARY STATISTICS					
Minimum	†	†	†	1.11	1.23
25th percentile	†	†	†	1.46	2.14
Median	†	†	†	1.70	2.88
75th percentile	†	†	†	1.80	3.22
Maximum	†	†	†	1.97	3.88

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Section D

Design effect tables for graduate students (excluding first-professional students) based on the CATI weights

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Table I-42.—Design effects based on the CATI weights for all graduate students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	21.94	0.76	0.46	1.65	2.71
Worked while in school	84.99	0.49	0.40	1.23	1.50
Worked 20 or more hours per week while in school	76.18	0.71	0.48	1.47	2.17
Worked multiple jobs in 1999-2000	17.76	0.57	0.43	1.33	1.77
Principal job in 1999-2000 related to major	68.65	0.71	0.53	1.34	1.79
Employed as a teacher.	32.83	0.91	0.52	1.73	3.00
Born outside the U.S.	17.80	0.66	0.44	1.50	2.26
Registered to vote	93.01	0.41	0.32	1.30	1.69
Voted in the 1999 elections (or planned to)	88.78	0.49	0.39	1.24	1.53
Has a disability	6.42	0.38	0.28	1.39	1.92
Attended more than one institution in 1999-2000	3.84	0.24	0.21	1.12	1.26
Has dependents other than spouse	38.06	0.81	0.54	1.49	2.23
Has children under 5 years old	15.15	0.53	0.40	1.31	1.72
Has children aged 5 to 12 years old	15.47	0.60	0.41	1.47	2.17
U.S. Armed Forces veteran	4.26	0.30	0.25	1.21	1.46
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	24.73	0.59	0.50	1.18	1.39
Ever attended a community college	46.56	0.85	0.57	1.48	2.18
Did community service during 1999-2000	44.66	0.78	0.58	1.36	1.86
SUMMARY STATISTICS					
Minimum	†	†	†	1.12	1.26
25th percentile	†	†	†	1.24	1.53
Median	†	†	†	1.35	1.82
75th percentile	†	†	†	1.48	2.18
Maximum	†	†	†	1.73	3.00

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-43.—Design effects based on the CATI weights for graduate students at public 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	19.36	0.99	0.58	1.71	2.92
Worked while in school	84.57	0.59	0.53	1.12	1.25
Worked 20 or more hours per week while in school	76.23	0.78	0.63	1.24	1.53
Worked multiple jobs in 1999-2000	18.57	0.80	0.57	1.41	1.98
Principal job in 1999-2000 related to major	68.97	0.93	0.70	1.33	1.77
Employed as a teacher.	37.20	1.14	0.71	1.61	2.60
Born outside the U.S.	17.19	0.77	0.57	1.35	1.83
Registered to vote	93.39	0.54	0.41	1.33	1.77
Voted in the 1999 elections (or planned to)	89.67	0.65	0.50	1.30	1.68
Has a disability	6.40	0.45	0.36	1.24	1.53
Attended more than one institution in 1999-2000	3.60	0.32	0.27	1.16	1.34
Has dependents other than spouse	37.84	1.00	0.71	1.42	2.00
Has children under 5 years old	15.20	0.69	0.53	1.30	1.69
Has children aged 5 to 12 years old	15.33	0.78	0.53	1.47	2.16
U.S. Armed Forces veteran	3.87	0.37	0.30	1.22	1.50
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	21.65	0.72	0.62	1.15	1.32
Ever attended a community college	44.35	1.13	0.75	1.51	2.27
Did community service during 1999-2000	44.84	0.92	0.75	1.22	1.49
SUMMARY STATISTICS					
Minimum	†	†	†	1.12	1.25
25th percentile	†	†	†	1.22	1.50
Median	†	†	†	1.31	1.73
75th percentile	†	†	†	1.42	2.00
Maximum	†	†	†	1.71	2.92

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-44.—Design effects based on the study weights for graduate students at private not-for-profit 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	25.81	1.18	0.79	1.49	2.23
Worked while in school	84.99	0.82	0.65	1.26	1.59
Worked 20 or more hours per week while in school	75.44	1.15	0.79	1.45	2.10
Worked multiple jobs in 1999-2000	16.05	0.79	0.67	1.18	1.39
Principal job in 1999-2000 related to major	68.19	1.13	0.87	1.29	1.67
Employed as a teacher.	28.06	1.46	0.81	1.79	3.22
Born outside the U.S.	19.00	1.20	0.73	1.63	2.66
Registered to vote	92.44	0.65	0.53	1.23	1.52
Voted in the 1999 elections (or planned to)	88.34	0.77	0.65	1.18	1.40
Has a disability	5.70	0.50	0.42	1.19	1.41
Attended more than one institution in 1999-2000	3.32	0.28	0.32	0.87	0.76
Has dependents other than spouse	39.00	1.32	0.88	1.49	2.23
Has children under 5 years old	15.73	0.92	0.67	1.37	1.88
Has children aged 5 to 12 years old	15.90	0.96	0.67	1.44	2.07
U.S. Armed Forces veteran	4.12	0.49	0.39	1.25	1.57
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	28.52	1.00	0.85	1.17	1.38
Ever attended a community college	45.76	1.28	0.93	1.37	1.88
Did community service during 1999-2000	45.03	1.47	0.94	1.57	2.46
SUMMARY STATISTICS					
Minimum	†	†	†	0.87	0.76
25th percentile	†	†	†	1.19	1.41
Median	†	†	†	1.33	1.78
75th percentile	†	†	†	1.49	2.23
Maximum	†	†	†	1.79	3.22

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Section E

Design effect tables for first-professional students based on the study weights

Table I-45.—Design effects based on the study weights for all first-professional students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	85.60	1.13	1.01	1.12	1.25
Received any federal aid	74.35	2.08	1.26	1.65	2.73
Received any non-federal aid	57.52	2.26	1.43	1.59	2.51
Received any state grant aid	7.59	1.37	0.76	1.79	3.21
Received any institution grant aid	31.68	2.36	1.34	1.76	3.10
Received any aid from other sources	28.16	1.91	1.30	1.47	2.17
Received any grant aid	44.06	2.26	1.43	1.58	2.48
Received any loan aid	75.68	1.88	1.24	1.52	2.30
Received any work-study aid	7.38	1.63	0.76	2.15	4.64
Received any other type of aid	8.84	0.99	0.82	1.21	1.46
Received any assistantship	5.94	0.78	0.68	1.15	1.32
Received a Stafford loan	73.47	2.12	1.28	1.67	2.77
Received a subsidized loan	72.05	2.17	1.30	1.68	2.81
Received an unsubsidized loan	63.10	2.30	1.39	1.65	2.72
Received grant aid only	7.05	1.42	0.74	1.92	3.69
Married	26.07	2.19	1.27	1.73	2.98
U.S. citizen	93.13	0.86	0.73	1.18	1.38
Enrolled exclusively full-time	84.03	2.00	1.06	1.89	3.56
Lived on campus	12.70	2.08	0.96	2.16	4.68
Applied for federal financial aid	77.27	2.01	1.21	1.66	2.76
SUMMARY STATISTICS					
Minimum	†	†	†	1.12	1.25
25th percentile	†	†	†	1.49	2.24
Median	†	†	†	1.66	2.74
75th percentile	†	†	†	1.78	3.15
Maximum	†	†	†	2.16	4.68

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-46.—Design effects based on the study weights for first-professional students at public 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	86.72	1.49	1.56	0.96	0.91
Received any federal aid	77.70	2.08	1.91	1.09	1.19
Received any non-federal aid	55.58	2.80	2.28	1.23	1.51
Received any state grant aid	10.90	2.30	1.43	1.61	2.59
Received any institution grant aid	29.22	2.32	2.09	1.11	1.24
Received any aid from other sources	22.90	2.18	1.93	1.13	1.28
Received any grant aid	43.85	2.67	2.28	1.17	1.37
Received any loan aid	78.92	2.07	1.87	1.11	1.22
Received any work-study aid	5.00	1.21	1.00	1.21	1.47
Received any other type of aid	11.14	2.00	1.44	1.38	1.92
Received any assistantship	6.52	1.46	1.13	1.29	1.67
Received a Stafford loan	77.23	2.03	1.92	1.06	1.12
Received a subsidized loan	76.18	2.10	1.95	1.07	1.15
Received an unsubsidized loan	62.30	2.51	2.22	1.13	1.28
Received grant aid only	4.22	0.99	0.92	1.07	1.15
Married	22.22	2.04	1.91	1.07	1.15
U.S. citizen	92.77	1.48	1.19	1.25	1.56
Enrolled exclusively full-time	87.40	1.75	1.52	1.15	1.32
Lived on campus	6.96	1.20	1.17	1.03	1.06
Applied for federal financial aid	80.77	1.92	1.81	1.06	1.13
SUMMARY STATISTICS					
Minimum	†	†	†	0.96	0.91
25th percentile	†	†	†	1.07	1.15
Median	†	†	†	1.12	1.26
75th percentile	†	†	†	1.22	1.49
Maximum	†	†	†	1.61	2.59

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-47.—Design effects based on the study weights for first-professional students at private not-for-profit 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any aid	85.73	1.50	1.30	1.15	1.33
Received any federal aid	72.96	3.19	1.66	1.93	3.72
Received any non-federal aid	59.45	3.36	1.83	1.83	3.36
Received any state grant aid	5.34	1.68	0.84	2.00	4.00
Received any institution grant aid	33.84	3.72	1.76	2.11	4.45
Received any aid from other sources	32.06	2.91	1.74	1.67	2.80
Received any grant aid	44.59	3.39	1.85	1.83	3.35
Received any loan aid	74.38	2.80	1.63	1.72	2.96
Received any work-study aid	9.16	2.62	1.07	2.44	5.95
Received any other type of aid	7.33	0.93	0.97	0.96	0.93
Received any assistantship	5.61	0.86	0.86	1.00	1.00
Received a Stafford loan	71.78	3.29	1.68	1.96	3.86
Received a subsidized loan	70.07	3.38	1.71	1.98	3.91
Received an unsubsidized loan	64.50	3.49	1.78	1.96	3.84
Received grant aid only	8.94	2.34	1.06	2.20	4.83
Married	28.39	3.50	1.68	2.08	4.34
U.S. citizen	93.28	1.04	0.93	1.12	1.25
Enrolled exclusively full-time	82.21	3.15	1.43	2.21	4.88
Lived on campus	16.36	3.29	1.38	2.38	5.68
Applied for federal financial aid	75.81	3.08	1.60	1.93	3.72
SUMMARY STATISTICS					
Minimum	†	†	†	0.96	0.93
25th percentile	†	†	†	1.70	2.88
Median	†	†	†	1.94	3.78
75th percentile	†	†	†	2.10	4.39
Maximum	†	†	†	2.44	5.95

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Section F

Design effect tables for first-professional students based on the CATI weights

Table I-48.—Design effects based on the CATI weights for all first-professional students

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	4.56	0.90	0.69	1.30	1.70
Worked while in school	51.01	3.04	1.66	1.83	3.35
Worked 20 or more hours per week while in school	25.68	2.82	1.46	1.93	3.74
Worked multiple jobs in 1999-2000	12.47	1.28	1.10	1.17	1.36
Principal job in 1999-2000 related to major	32.05	2.79	1.61	1.74	3.02
Employed as a teacher.	4.73	0.66	0.70	0.95	0.90
Born outside the U.S.	13.56	1.51	1.18	1.28	1.65
Registered to vote	91.03	1.15	1.02	1.13	1.29
Voted in the 1999 elections (or planned to)	78.19	1.95	1.48	1.32	1.75
Has a disability	4.03	0.68	0.65	1.04	1.09
Attended more than one institution in 1999-2000	1.64	0.32	0.42	0.78	0.60
Has dependents other than spouse	18.98	1.96	1.29	1.52	2.30
Has children under 5 years old	10.62	1.30	1.03	1.27	1.61
Has children aged 5 to 12 years old	7.77	1.17	0.89	1.31	1.70
U.S. Armed Forces veteran	4.20	0.82	0.68	1.20	1.44
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	36.33	2.12	1.67	1.27	1.62
Ever attended a community college	41.27	2.39	1.70	1.41	1.99
Did community service during 1999-2000	50.63	2.25	1.73	1.30	1.70
SUMMARY STATISTICS					
Minimum	†	†	†	0.78	0.60
25th percentile	†	†	†	1.17	1.36
Median	†	†	†	1.29	1.67
75th percentile	†	†	†	1.41	1.99
Maximum	†	†	†	1.93	3.74

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-49.—Design effects based on the CATI weights for first-professional students at public 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	2.94	1.05	0.87	1.21	1.46
Worked while in school	44.06	2.63	2.56	1.03	1.05
Worked 20 or more hours per week while in school	17.66	2.00	1.98	1.01	1.02
Worked multiple jobs in 1999-2000	11.19	1.76	1.63	1.08	1.17
Principal job in 1999-2000 related to major	31.86	2.54	2.49	1.02	1.04
Employed as a teacher.	4.35	1.08	1.05	1.03	1.07
Born outside the U.S.	15.00	2.78	1.91	1.45	2.12
Registered to vote	92.33	1.58	1.48	1.07	1.15
Voted in the 1999 elections (or planned to)	77.81	2.26	2.32	0.97	0.95
Has a disability	3.68	1.02	0.97	1.05	1.09
Attended more than one institution in 1999-2000	1.57	0.46	0.64	0.72	0.52
Has dependents other than spouse	18.16	2.37	1.98	1.20	1.44
Has children under 5 years old	10.85	2.09	1.60	1.31	1.70
Has children aged 5 to 12 years old	7.99	1.56	1.40	1.12	1.25
U.S. Armed Forces veteran	4.94	1.48	1.14	1.29	1.68
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	31.92	2.80	2.51	1.12	1.24
Ever attended a community college	40.44	3.48	2.63	1.32	1.75
Did community service during 1999-2000	49.17	2.80	2.69	1.04	1.09
SUMMARY STATISTICS					
Minimum	†	†	†	0.72	0.52
25th percentile	†	†	†	1.03	1.05
Median	†	†	†	1.08	1.16
75th percentile	†	†	†	1.21	1.46
Maximum	†	†	†	1.45	2.12

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Table I-50.—Design effects based on the CATI weights for first-professional students at private not-for-profit 4-year institutions

	Percent estimate	Design standard error	Simple random sample standard error	DEFT	DEFF
Received any employer aid	5.60	1.36	0.99	1.37	1.89
Worked while in school	55.65	5.04	2.16	2.33	5.43
Worked 20 or more hours per week while in school	30.80	4.71	2.02	2.33	5.44
Worked multiple jobs in 1999-2000	13.51	1.83	1.49	1.23	1.51
Principal job in 1999-2000 related to major	32.32	4.51	2.11	2.14	4.59
Employed as a teacher.	5.08	0.85	0.95	0.90	0.81
Born outside the U.S.	12.66	1.67	1.50	1.11	1.24
Registered to vote	90.06	1.61	1.39	1.16	1.35
Voted in the 1999 elections (or planned to)	78.41	2.96	1.92	1.54	2.38
Has a disability	4.32	0.93	0.88	1.05	1.10
Attended more than one institution in 1999-2000	1.49	0.41	0.52	0.78	0.61
Has dependents other than spouse	19.05	2.91	1.70	1.72	2.94
Has children under 5 years old	10.32	1.65	1.33	1.24	1.54
Has children aged 5 to 12 years old	6.80	1.53	1.10	1.39	1.92
U.S. Armed Forces veteran	3.46	0.91	0.82	1.11	1.23
Considered crime rate, graduation rate, or job placement rate when deciding which school to attend	39.63	3.04	2.21	1.37	1.88
Ever attended a community college	41.20	3.23	2.22	1.46	2.12
Did community service during 1999-2000	51.59	3.31	2.26	1.46	2.13
SUMMARY STATISTICS					
Minimum	†	†	†	0.78	0.61
25th percentile	†	†	†	1.11	1.24
Median	†	†	†	1.37	1.89
75th percentile	†	†	†	1.54	2.38
Maximum	†	†	†	2.33	5.44

† Not Applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000).

Appendix J
NPSAS:2000 Analysis Variables

Note: This list of NPSAS:2000 analysis variables is current as this report is being published. However, it is anticipated that additional variables will be created and added in the future. Links to the most recent NPSAS Data Analysis Systems, which contain the NPSAS analysis variables can be found at the following web sites.

http://nces.ed.gov/das

Variable name	Section	Variable label
TOTAID	Aid	Aid total amount 1999-2000
EMPLYAMT	Aid	Employer aid (includes college staff) 1999-2000
TOTOTHR	Aid	Other type of aid (includes PLUS) 1999-2000
TOTAID2	Aid	Total federal (Title IV), state, & institutional aid 1999-2000
TOTGRT	Aid	Total grants 1999-2000
TOTLOAN	Aid	Total loans (excluding PLUS) 1999-2000
TOTLOAN2	Aid	Total loans (including PLUS) 1999-2000
NEEDAID1	Aid	Total need-based aid 1999-2000
NEEDAID	Aid	Total need-based grant aid 1999-2000
TNFEDGRT	Aid	Total non-federal grants 1999-2000
TNFEDLN	Aid	Total non-federal loans 1999-2000
TOTWKST	Aid	Total work-study 1999-2000
WAIVAMT	Aid	Tuition waivers 1999-2000
FEDAPP	AidFed	Applied for federal aid 1999-2000
CAMPAMT	AidFed	Federal campus-based aid (Perkins, SEOG, FWSP) 1999-2000
FEDNEED	AidFed	Federal need-based aid 1999-2000
TFEDAID	AidFed	Total federal aid (excludes veterans/DOD) 1999-2000
TITIVAMT	AidFed	Total federal Title IV aid 1999-2000
PELLCUM	AidFedGrant	Cumulative Pell grant amount 1993 to 2000
PELLFST	AidFedGrant	First year received a Pell grant 1994-2000
PELLLST	AidFedGrant	Last year received a Pell grant 1994-2000
PELLNUM	AidFedGrant	Number of Pell grant schools 1999-2000
PELLYRS	AidFedGrant	Number of years received Pell grants thru 1999-2000
PELLAMT	AidFedGrant	Pell grant total 1999-2000
PELLNP	AidFedGrant	Pell received at NPSAS school 1999-2000
SEOGAMT	AidFedGrant	SEOG 1999-2000
TFEDGRT	AidFedGrant	Total federal grants 1999-2000
STFCUM1	AidFedLoan	Cumulative Stafford loans-undergraduate 1999-2000
NPLN	AidFedLoan	NPSAS school loan indicator 1999-2000
LNSCHLS	AidFedLoan	Number of federal loan schools 1999-2000
PERKAMT	AidFedLoan	Perkins loan 1999-2000
PLUSAMT	AidFedLoan	PLUS loan total 1999-2000
STAFTYPE	AidFedLoan	Stafford loan combinations (sub/unsub) 1999-2000
STAFFCT1	AidFedLoan	Stafford subsidized maximum 1999-2000
STAFSUB	AidFedLoan	Stafford subsidized total 1999-2000
STAFCT2R	AidFedLoan	Stafford total maximum 1999-2000
STAFCT2	AidFedLoan	Stafford total maximum categories 1999-2000
STAFFAMT	AidFedLoan	Stafford total subsidized+unsubsidized 1999-2000
STAFCT3R	AidFedLoan	Stafford unsubsidized maximum 1999-2000
STAFCT3	AidFedLoan	Stafford unsubsidized maximum categories 1999-2000
STAFUNSB	AidFedLoan	Stafford unsubsidized total 1999-2000
T4LNAMT1	AidFedLoan	Title IV loans (except PLUS) 1999-2000
T4LNAMT2	AidFedLoan	Title IV loans (includes PLUS) 1999-2000
TFEDLN	AidFedLoan	Total federal loans (excl PLUS) 1999-2000

Variable name	Section	Variable label
TFEDLN2	AidFedLoan	Total federal loans (incl PLUS) 1999-2000
TFEDWRK	AidFedOther	Federal Work-study 1999-2000
TFEDOTHR	AidFedOther	Other federal amount (including PLUS) 1999-2000
INATHAMT	AidInst	Athletic scholarships 1999-2000
EMPLYAM1	AidInst	Employer aid - tuition reimbursement 1999-2000
INSTAMT	AidInst	Institutional aid total 1999-2000
INGRTAMT	AidInst	Institutional grants total 1999-2000
INLNAMT	AidInst	Institutional loans 1999-2000
INSMERIT	AidInst	Institutional merit-only grants 1999-2000
INSTNEED	AidInst	Institutional need-based grants 1999-2000
INSTNOND	AidInst	Institutional no-need grants 1999-2000
INSTWRK	AidInst	Institutional work-study 1999-2000
INOTHAMT	AidInst	Other institutional aid 1999-2000
EMPLWAIV	AidInst	Tuition waivers for staff 1999-2000
JTPA	AidOther	Job training grants 1999-2000
OTHGTAMT	AidOther	Other grant total (not fed./state/institutions) 1999-2000
OTHLNAMT	AidOther	Other loan total (not fed./state/institutions) 1999-2000
OTHRSCR	AidOther	Other source aid (private, employer, veterans) 1999-2000
OTHROTHR	AidOther	Other source-other type of aid 1999-2000
PRIVAID	AidOther	Private sources grants 1999-2000
PRIVLOAN	AidOther	Private sources loans 1999-2000
VADODAMT	AidOther	Veteran's benefits and DOD 1999-2000
VOCHELP	AidOther	Vocational rehabilitation and job training 1999-2000
AIDPACK	AidPackage	Aid package by type of aid 1999-2000
AIDPK1	AidPackage	Aid package-grants and loans 1999-2000
LOANAID2	AidPackage	Combinations of loans and other aid 1999-2000
LOANPK	AidPackage	Federal loan combinations 1999-2000
GRNTSRC	AidPackage	Grant package by source of aid (all combinations) 2000
LOANSRC	AidPackage	Loan package by source of aid (all combinations) 2000
AIDSRC	AidPackage	Package by source of aid (all combinations) 2000
SCRPACK2	AidPackage	Package by source of aid (fed/st/inst) 1999-2000
AIDTYPE	AidPackage	Package by type of aid (all combinations) 2000
FEDPACK	AidPackage	Package with federal aid (Pell and Stafford) 1999-2000
PELLPACK	AidPackage	Package with Pell grants 1999-2000
STAFPACK	AidPackage	Package with Stafford loans 1999-2000
SCRPACK1	AidPackage	Package with Title IV aid by source 1999-2000
INSTPACK	AidPackage	Type of institutional aid package 1999-2000
STOTHAMT	AidState	Other state aid 1999-2000
STATEAMT	AidState	State aid total 1999-2000
STGTAMT	AidState	State grants total 1999-2000
STLNAMT	AidState	State loans 1999-2000
STMERIT	AidState	State merit-only grants 1999-2000
STATNEED	AidState	State need-based grants 1999-2000
STWKAMT	AidState	State work-study 1999-2000

Variable name	Section	Variable label
ATTNPTRN	Attendance	Attendance intensity (all schools) 1999-2000
ATTEND	Attendance	Attendance intensity in fall 1999-2000
ATTNSTAT	Attendance	Attendance pattern 1999-2000
OWEAMT1	Borrowed	Amount owed all undergraduate loans (incl family) as of 2000
FAMOWE	Borrowed	Amount still owed for loans from family/friends as of 2000
OWEFED1	Borrowed	Amount still owed on federal undergraduate loans as of 2000
BORAMT1B	Borrowed	Cumulative borrowed non-family undergraduate loans as of 200
BORAMT1	Borrowed	Cumulative borrowed undergrad education (incl family) 2000
BORFED1	Borrowed	Cumulative borrowed undergraduate federal loans as of 2000
NCREPAY	Borrowed	Currently repaying student loans in 2000
RELLOAN	Borrowed	Loans from family and friends in 1999-2000
NCRPYAMT	Borrowed	Monthly amount student loan payment 1999-2000
NCRPYPAR	Borrowed	Parents help repay student loans 1999-2000
ZBORFED	Borrowed	Source for federal loans borrowed (BORFED1-3)
FAMLOAN	Borrowed	Total ever borrowed from family/friends for education 2000
NDVLTP1	CommunityService	1st type of community service reported 1999-2000
LITERACY	CommunityService	Adult literacy project 1999-2000
NDVLGRAD	CommunityService	Community service required for graduation 1999-2000
HOSPITAL	CommunityService	Hospital/nursing home/group home 1999-2000
NEIGHBOR	CommunityService	Neighborhood improvement/cleanup 1999-2000
COMMNUM	CommunityService	Number of community service activities 1999-2000
OTHCOMM	CommunityService	Other type community service 1999-2000
MONEYP	CommunityService	Raise money for political campaign 1999-2000
MONEYNP	CommunityService	Raise money- non-political 1999-2000
CHURCH	CommunityService	Service to the church 1999-2000
NDVLHRS	CommunityService	Student hrs/month doing community service 1999-2000
TELCRIS	CommunityService	Telephone crisis center 1999-2000
NDCOMSRV	CommunityService	Voluntary community service 1999-2000
EMTFIRE	CommunityService	Volunteer firefighter/EMT 1999-2000
COACH	CommunityService	Work with kids as a coach/scouting 1999-2000
MENTOR	CommunityService	Work with kids as tutor/mentor 1999-2000
SHELTER	CommunityService	Worked at a shelter/soup kitchen 1999-2000
NFANYDIS	Disability	Any disability reported 1999-2000
ADD	Disability	Attention deficit disorder (ADD) 1999-2000
NFDIFDRS	Disability	Difficulty dressing 1999-2000
NFDIFCAM	Disability	Difficulty getting around on campus 1999-2000
NFDIFSCH	Disability	Difficulty getting to school 1999-2000
NFDIFLRN	Disability	Difficulty learning 1999-2000
NFDIFWRK	Disability	Difficulty working at a job 1999-2000
DISABIL	Disability	Disability and difficulty 1999-2000
NFSLFDIS	Disability	Do you consider yourself to have a disability 1999-2000
NFVOCAPP	Disability	Ever applied for vocational rehabilitation
NFVOCREC	Disability	Ever received vocational rehabilitation services
DEAFNESS	Disability	Hearing impaired or deaf 1999-2000

Variable name	Section	Variable label
LEARNDIS	Disability	Learning disability 1999-2000
NFMAIN	Disability	Main limiting condition 1999-2000
MENTILL	Disability	Mental illness or depression 1999-2000
NFDISMOB	Disability	Mobility disabilities 1999-2000
ORTHO	Disability	Orthopedic limitation 1999-2000
HEALTOTH	Disability	Other health related disabilities 1999-2000
VISUAL	Disability	Partially sighted or blind 1999-2000
NFDISOTH	Disability	Physical/mental/emotional disability 1999-2000
NFSSI	Disability	Receive SSI/SSDI 1999-2000
NFDISSEN	Disability	Sensory disabilities 1999-2000
DISNEED	Disability	Services needed 1999-2000
DISSERV	Disability	Services received 1999-2000
EFC1	EFC	EFC as reported (Pell, CPS, CADE) 1999-2000
EFC4	EFC	Expected Family Contribution (composite) 1999-2000
SEROLE	EmployeeStudent	Primary role-student or employee 1999-2000
WORKATT	EmployeeStudent	Work and attendance intensity 1999-2000
NDCAREER	Employment	Attend school-advancement (employee) 1999-2000
NDDEGREE	Employment	Attend school-degree (employee) 1999-2000
NDENRICH	Employment	Attend school-enrichment (employee) 1999-2000
NDADDED	Employment	Attend school-required (employee) 1999-2000
CUREMP	Employment	Employment status at time of interview 1999-2000
NDXINDCD	Employment	Enrolled job-industry-code 1999-2000
NDOCCCD	Employment	Enrolled job-occupation-code 1999-2000
NDEXPWRK	Employment	Expected to have job to pay for school 1999-2000
NDPREMP	Employment	Had job prior to enrollment 1999-2000
NDHRSEXP	Employment	Hours expected to work 1999-2000
NDHOURS	Employment	Hours worked per week in NPSAS year 1999-2000
NDRELMAJ	Employment	Job related to major
NDEFFGRD	Employment	Job-affect on grades (student) 1999-2000
NDAFFORD	Employment	Job-afford school (student) 1999-2000
NDHLPCAR	Employment	Job-help with career preparation (student) 1999-2000
NDHLPCLS	Employment	Job-help with coursework (student) 1999-2000
NDLIMSCH	Employment	Job-limit class schedule (student) 1999-2000
NDLIMCLS	Employment	Job-limit classes (student) 1999-2000
NDLIMLIB	Employment	Job-limit library access (student) 1999-2000
NDRSTRCT	Employment	Job-restrict class choice (student) 1999-2000
NDWRKRSN	Employment	Main reason for working 1999-2000
NDNUMJOB	Employment	Number of jobs during NPSAS year 1999-2000
NDEMPTYP	Employment	Type of employer 1999-2000
NDWKSWK	Employment	Weeks worked while enrolled 1999-2000
NDSCHEMP	Employment	Work for school 1999-2000
ENRJOB	Employment	Work intensity while enrolled 1999-2000
NDONOFF	Employment	Work on/off campus 1999-2000
NEWKPLN	Employment	Work plans for next year 1999-2000

Variable name	Section	Variable label
NDWCMSRV	Employment	Work-study for community service 1999-2000
NDLTRCY	Employment	Work-study involves literacy/tutoring 1999-2000
WORKED	Employment	Worked while enrolled 1999-2000
MFT	Enrollment	Months enrolled full-time 1999-2000
MHT	Enrollment	Months enrolled half-time 1999-2000
MPT	Enrollment	Months enrolled less than half-time 1999-2000
ENLEN	Enrollment	Number of months enrolled 1999-2000
MMX	Enrollment	Number of months mixed enrollment 1999-2000
ZATTEND	Enrollment	Source for enrollment variables
HSIZE	Family	Household size (parents and independent) 1999-2000
SFAMNUM	Family	Student's family size 1999-2000
NCOTHRES	FundSource	Lived with parents while not enrolled 1999-2000
NCPAYPAR	FundSource	Paid parents room and board 1999-2000
NCPARTUI	FundSource	Parents helped pay tuition 1999-2000
NCSCHSUP	FundSource	Support for school expenses-not tuition
NCCREDIT	FundSource	Tax credit affect decision 1999-2000
NCCRD00	FundSource	Tax credit will be used in 2000
NCPRETYP	FundSource	Type of prepayment plan 1999-2000
NCEQUITY	FundSource	Used home equity loan 1999-2000
TAXCR	FundSource	Used Hope or lifetime learning 1999-2000
NCHOPE	FundSource	Used Hope scholarship 1999-2000
NCLIFTIM	FundSource	Used lifetime learning tax credit 1999-2000
NCSTSAV	FundSource	Used state-savings plan 1999-2000
NCPREPAY	FundSource	Used tuition prepayment plan 1999-2000
NCBONDS	FundSource	Used US savings bonds 1999-2000
INDEPINC	Income	Income of independent students 1998
DEPINC	Income	Income of parents of dependent students
SPSINC	Income	Income of student's spouse in 1998
PCTDEP	Income	Income percentile dependent students 1999-2000
PCTINDEP	Income	Income percentile independent students 1999-2000
PCTALL2	Income	Income percentile rank for all students 1999-2000
PCTPOV98	Income	Percent of poverty 1998
INCOME	Income	Total income by dependency (categorical) 1999-2000
CINCOME	Income	Total income-parents and independent (continuous)
CALSYS	Institution	Academic calendar system 1999-2000
CARNEGIE	Institution	Carnegie code (1994) for NPSAS institution
CC2000	Institution	Carnegie code (2000) for NPSAS institution
AIDCTRL	Institution	Control of institution (with multiple) 1999-2000
NXDSTSCH	Institution	Distance from home 1999-2000
ENRLSIZE	Institution	Enrollment size at NPSAS institution 1998-1999
GRS97	Institution	Graduation rate 1997
GRS2000	Institution	Graduation rate 2000
HLOFFER	Institution	Highest level of offering 1999-2000
HBCU	Institution	Historical Black college indicator 1999-2000

Variable name	Section	Variable label
CONTROL	Institution	Institution control 1999-2000
INSSTATE	Institution	Institution state 1999-2000
AIDSECT	Institution	Institution type (with multiple) 1999-2000
GRADRATE	Institution	Institutional graduation rate (combined 97/2000)
AIDLEVL	Institution	Level of institution (with multiple) 1999-2000
LOCALE	Institution	Location of institution (urban/rural) 1999-2000
AFFIL	Institution	NPSAS institution affiliation 1999-2000
LEVEL	Institution	NPSAS sample institution level 1999-2000
STUDMULT	Institution	Number of institutions attended in 1999-2000
OBEREG	Institution	OBE region code 1999-2000
PCTMIN2	Institution	Percent enrolled-American Indian/Alaskan 1999-2000
PCTMIN3	Institution	Percent enrolled-Asian/Pacific Islander 1999-2000
PCTMIN1	Institution	Percent enrolled-Black, non-Hispanic 1999-2000
PCTMIN4	Institution	Percent enrolled-Hispanic 1999-2000
SECTOR9	Institution	Sampled institution type 1999-2000
SECTOR4	Institution	Sector (4 categories plus multiple) 1999-2000
TWOYRCAT	Institution	Two-year college classification
NESAFETY	InstitutionChoice	Considered campus safety 1999-2000
NEGRDRAT	InstitutionChoice	Considered graduation rate 1999-2000
NEJOBRAT	InstitutionChoice	Considered job placement rate 1999-2000
RATED	InstitutionChoice	Number of rating criteria 1999-2000
AIDFTND	Need	Aid amount exceeding federal need (full-time) 1999-2000
AIDSNEED	Need	Aid amount exceeding federal need 1999-2000
EFCAID1	Need	Aid subject to federal EFC limitation 1999-2000
SNEED3	Need	Student budget (adjust) minus EFC minus fed grants 1999-2000
SNEED4	Need	Student budget (adjust) minus EFC minus grants+federal need aid
SNEED1	Need	Student budget (adjusted) minus EFC 1999-2000
SNEED5	Need	Student budget (adjusted) minus EFC minus all grants 1999-2000
SNEED2	Need	Student budget (adjusted) minus EFC minus total aid 1999-2000
FTNEED1	Need	Student budget (full-time, full-year) minus EFC 1999-2000
FTNEED2	Need	Student budget (full-time, fy) minus EFC minus aid 1999-2000
NETCST1	NetPrice	Student budget (adjusted) minus all aid 1999-2000
NETCST3	NetPrice	Student budget (adjusted) minus all grants 1999-2000
NETCST2	NetPrice	Student budget (adjusted) minus federal grants 1999-2000
NETCST5	NetPrice	Student budget (full-time) minus all aid 1999-2000
NETCST7	NetPrice	Student budget (full-time) minus all grants 1999-2000
NETCST6	NetPrice	Student budget (full-time) minus federal grants 1999-2000
NETCST4	NetPrice	Student budget (adjusted) minus grants+ (1/2)*loans 1999-2000
NETCST8	NetPrice	Student budget (full-time) minus grants+(1/2)*loans 1999-2000
NETCST9	NetPrice	Tuition and fees minus all grants 1999-2000
NETCST14	NetPrice	Tuition and fees minus all non-federal grants 1999-2000
NETCST10	NetPrice	Tuition and fees minus federal grants 1999-2000
NETCST13	NetPrice	Tuition and fees minus institutional grants 1999-2000
NETCST12	NetPrice	Tuition and fees minus state grants 1999-2000

Variable name	Section	Variable label
NETCST15	NetPrice	Tuition and fees minus state+institutional grants 1999-2000
CUMOWE2	NSLDS	Amount owed (Stafford, Perkins, & Plus) in 2000 (NSLDS)
CUMOWE1	NSLDS	Amount owed Stafford and Perkins in 2000 (NSLDS)
CUMUG1	NSLDS	Cumulative borrowed undergrad (Stafford&Perkins) 2000 (NSLDS)
CUMUG2	NSLDS	Cumulative borrowed undergraduate (including PLUS) 2000 (NSLDS)
PERKCUM	NSLDS	Perkins loans - cumulative through 2000 (NSLDS)
PLUSCUM	NSLDS	PLUS loans - cumulative through 2000 (NSLDS)
T4TOXCUM	NSLDS	Title IV loans excluding PLUS - cumulative through 2000 (NSLDS)
T4TOTCUM	NSLDS	Title IV loans including PLUS - cumulative through 2000 (NSLDS)
PFAMNUM	Parent	Family size-parents household 1999-2000
NBDADAS	Parent	Father earned associate's degree
NBUSDAD	Parent	Father US born 1999-2000
NBCTRYD	Parent	Father's country of origin 1999-2000
NBDADCD	Parent	Father's occupation code
PARBORN	Parent	Foreign born parents 1999-2000
NBMOMAS	Parent	Mother earned associate's degree
NBUSMOM	Parent	Mother US born 1999-2000
NBCTRYM	Parent	Mother's country of origin 1999-2000
NBMOMCD	Parent	Mother's occupation code
NBPRCOL	Parent	Parent in postsecondary education
PMARITAL	Parent	Parent's marital status 1999-2000
NBARRVF	Parent	Year father arrived in US 1999-2000
NBARRVM	Parent	Year mother arrived in US 1999-2000
NPARED	ParentEduc	Parent's highest education level 1999-2000
NONTUI	Price	Amount of non-tuition support 1999-2000
NCCSTBKS	Price	Cost of books/supplies 1999-2000
NCCMPTR	Price	Cost of computers and special equipment 1999-2000
BUDGETA2	Price	Student budget (attendance adjusted) 1999-2000
BUDGETFT	Price	Student budget (full-time, full-year) 1999-2000
SBNONTA2	Price	Total budget non-tuition costs (attendance adjusted) 1999-2000
SBNONTUN	Price	Total non-tuition costs (full-time, full-year) 1999-2000
TUITION2	Price	Tuition and fees 1999-2000
INJURIS	Price	Tuition jurisdiction (in/out of area)-NPSAS inst 1999-2000
FEDPCT	Ratio	Ratio of federal aid to total aid 1999-2000
FEDGRPCT	Ratio	Ratio of federal grant aid to total aid 1999-2000
GRTCST	Ratio	Ratio of grant aid to student budget 1999-2000
GRTPCTTN	Ratio	Ratio of grant aid to tuition 1999-2000
GRTRATIO	Ratio	Ratio of grants to grants and loans 1999-2000
GRTPCT	Ratio	Ratio of grants to total aid 1999-2000
GRTLOAN	Ratio	Ratio of grants to total loans 1999-2000
INSTPCT	Ratio	Ratio of institution aid to total aid 1999-2000
INSTGPCT	Ratio	Ratio of institutional grant aid to total aid 1999-2000
LOANCSTR	Ratio	Ratio of loans to student budget (excl PLUS) 1999-2000
LOANCST	Ratio	Ratio of loans to student budget 1999-2000

Variable name	Section	Variable label
LOANPCT	Ratio	Ratio of loans to total aid 1999-2000
PELLRAT1	Ratio	Ratio of Pell grant amount to total aid 1999-2000
PELLRAT2	Ratio	Ratio of Pell grant amount to total grants 1999-2000
PELLCST	Ratio	Ratio of Pell grant to student budget 1999-2000
PLUSPCT	Ratio	Ratio of PLUS loan to total aid 1999-2000
STAPCT	Ratio	Ratio of state aid to total aid 1999-2000
STGRPCT	Ratio	Ratio of state grants to total aid 1999-2000
AIDCST1	Ratio	Ratio of total aid to student budget (adjusted) 1999-2000
AIDCST2	Ratio	Ratio of total aid to student budget (full-time) 1999-2000
WORKPCT	Ratio	Ratio of work-study to total aid 1999-2000
NEREMEVR	Remedial	Ever taken remedial courses
NEREMSY	Remedial	Remedial courses (freshman/sophomore) in 1999-2000
NEENGLIS	Remedial	Remedial English (freshman/sophomore) in 1999-2000
NEMATH	Remedial	Remedial math (freshman/sophomore) in 1999-2000
NEREAD	Remedial	Remedial reading (freshman/sophomore) in 1999-2000
NEWRITE	Remedial	Remedial writing (freshman/sophomore) in 1999-2000
NESTUDY	Remedial	Study skills (freshman/sophomore) in 1999-2000
CATIRESP	Sample	CATI respondent flag 1999-2000
COMPTO87	Sample	Comparable to 1987 NPSAS 1999-2000
INCPS	Sample	CPS data indicator 1999-2000
STRATUM	Sample	Institution sampling stratum 1999-2000
SAMPSTR	Sample	Student sample stratum 1999-2000
STYPELST	Sample	Student type 1999-2000
STUTYPE	Sample	Student type includes B&B 1999-2000
STDYRESP	Sample	Study respondent flag 1999-2000
AGE	Student	Age as of 12/31/99
SMARCHNG	Student	Change in marital status 1999-2000
NBCTRY	Student	Country of origin 1999-2000
DEPEND5A	Student	Dependency and marital status (separated=married) 1999-2000
DEPEND5B	Student	Dependency and marital status (separated=unmarried) 1999-2000
DEPEND4	Student	Dependency status (4 categories) 1999-2000
DEPEND	Student	Dependency status 1999-2000
DEPEND2	Student	Dependency status for financial aid 1999-2000
GENDER	Student	Gender 1999-2000
DPGPAR	Student	Grandparent was dependent 1999-2000
NBDEPS	Student	Has dependent children 1999-2000
NBOTDPS	Student	Has dependents other than children 1999-2000
NBSIB	Student	Have college-age siblings 1999-2000
IMMIGR	Student	Immigrant status 1999-2000
RISKINDX	Student	Index of risk 1999-2000
NBMARR	Student	Marital status 1999-2000
NBTRIBE	Student	Member of recognized tribe 1999-2000
SEMILTYP	Student	Military service type 1999-2000
NBDAYCST	Student	Monthly daycare costs 1999-2000

Variable name	Section	Variable label
DPOTH	Student	Non-relative was dependent 1999-2000
NBSIBCOL	Student	Number college-age siblings with postsecondary education
NBDAGE3	Student	Number of dependents 13-16
NDEPEND	Student	Number of dependents 1999-2000
NBDAGE2	Student	Number of dependents age 5-12
NBCOLL	Student	Number of dependents in college 1999-2000
NBDAGE4	Student	Number of dependents over 16
NBDAGE1	Student	Number of dependents under age 5
DPREL	Student	Other relative was dependent 1999-2000
DPPAR	Student	Parent was dependent 1999-2000
NBLANG	Student	Primary language 1999-2000
R2INDIAN	Student	Race--American Indian or Alaska Native 1999-2000
R2ASIAN	Student	Race--Asian 1999-2000
R2BLACK	Student	Race--Black or African-American 1999-2000
CENRACE1	Student	Race--Census categories (historical) 1999-2000
CENRACE2	Student	Race--Census categories (with multiple) 1999-2000
R2ISLAND	Student	Race--Native Hawaiian/other Pacific Islander 1999-2000
R2OTHER	Student	Race--Other 1999-2000
ZRACE2	Student	Race--Source for race variables 1999-2000
NBASIAN	Student	Race--Type of Asian origin 1999-2000
R2WHITE	Student	Race--White 1999-2000
RACE1	Student	Race-ethnicity (historical) 1999-2000
RACE2	Student	Race-ethnicity (with multiple) 1999-2000
HISPANIC	Student	Race-ethnicity--Hispanic or Latino 1999-2000
ZHISP2	Student	Race-ethnicity--Source for HISPANIC 1999-2000
NBHISTYP	Student	Race-ethnicity--Type of Hispanic/Latino origin
NDDEP99	Student	Respondent claimed as a dependent-1999
NDDEP00	Student	Respondent claimed as a dependent-2000
ANYDEP	Student	Respondent has dependents 1999-2000
SINGLPAR	Student	Single parent 1999-2000
ZVET	Student	Source for VETERAN
NBDAYCR	Student	Source of childcare
NBSPCOL	Student	Spouse attending college 1999-2000
NBSPAID	Student	Spouse receives financial aid 1999-2000
CITIZEN2	Student	Student's citizenship 1999-2000
SMARITAL	Student	Student's marital status 1999-2000
STUSTATE	Student	Student's state of legal residence 1999-2000
LNDEFI	Student	Sum of loan default risk factors
DEPTYPE	Student	Types of dependents 1999-2000
NBUSBORN	Student	US born
VETERAN	Student	Veteran and military status
NBYRIMM	Student	Year student came to US
NDSMRSAV	Student finance	Amount saved education expenses 1999-2000
NDSUMMR	Student finance	Did respondent work summer 1999

Variable name	Section	Variable label
NDSMRHR	Student finance	Hours worked during summer 1999
DEGLAST	StudentDegree	Degree program (last) 1999-2000
DEGFIRST	StudentDegree	Degree program 1999-2000
COSMLIC	StudentDegree	Holds a cosmetology license 1999-2000
FOODLIC	StudentDegree	Holds a food service license 1999-2000
TECHLIC	StudentDegree	Holds a med tech/therapy/EMT license 1999-2000
NOHHALIC	StudentDegree	Holds a nurses aid/home health aid license 1999-2000
NURSELIC	StudentDegree	Holds a nursing/LPN/RN license 1999-2000
TEACHLIC	StudentDegree	Holds a teaching license 1999-2000
ANYLIC	StudentDegree	Holds any license 1999-2000
OTHRLIC	StudentDegree	Holds other type of license 1999-2000
NDLIC1	StudentDegree	License 1 1999-2000
NDLICENS	StudentDegree	Number of licenses held 1999-2000
PROGSTAT	StudentDegree	Student completed degree program 1999-2000
AGEPSE	StudentEduc	Age at start of postsecondary education 1999-2000
SAMESTAT	StudentEduc	Attend institution in state of legal residence 1999-2000
DELAYENR	StudentEduc	Delayed enrollment into PSE 1999-2000
NEDSTED	StudentEduc	Distance education courses 1999-2000
NEENTPGM	StudentEduc	Distance education-entire program
NENET	StudentEduc	Distance education-internet 1999-2000
NELIVE	StudentEduc	Distance education-live 1999-2000
NERECORD	StudentEduc	Distance education-pre-recorded 1999-2000
NECMPSAT	StudentEduc	Distance education-satisfaction 1999-2000
NBEVR4YR	StudentEduc	Ever attend 4-yr school
NBEVRCC	StudentEduc	Ever attend community college
MAJORS	StudentEduc	Field of study/major (99 categories) 1999-2000
GPA2	StudentEduc	Grade point average 1999-2000
HSDEG	StudentEduc	High school degree 1999-2000
HSGRADYY	StudentEduc	High school graduation year
NEEXPEVR	StudentEduc	Highest level of education planned 1999-2000
LOCALRES	StudentEduc	Housing 1999-2000
NEDSLOC	StudentEduc	Location of distance education course(s) 1999-2000
APPRENT	StudentEduc	Participated in apprenticeship 1999-2000
COOP	StudentEduc	Participated in cooperative education program 1999-2000
SEPROGRM	StudentEduc	Participated in cooperative/internship/appren 1999-2000
INTERN	StudentEduc	Participated in internship 1999-2000
UGASST	StudentEduc	Participated in paid assistantship 1999-2000
UGWKSTD	StudentEduc	Participated in paid work study position 1999-2000
NEEDPLN	StudentEduc	School plans for next year 1999-2000
NACLSTRT	StudentEduc	Time that most classes start 1999-2000
SAHSTYPE	StudentEduc	Type of high school attended 1999-2000
MAJORS3	StudentEduc	Undergraduate field of study 1999-2000
PSECTYR	StudentEduc	Year first enrolled in postsecondary education
NDCRDBAL	StudentFinance	Balance due on all credit cards 2000

Variable name	Section	Variable label
NDTANFCR	StudentFinance	Currently receiving TANF 1999-2000
NDNUMCRD	StudentFinance	Number of credit cards in own name 2000
NDCRDPAR	StudentFinance	Parents help pay credit bills 2000
NDPAYOFF	StudentFinance	Payoff or carry credit balance 2000
NDCHILD	StudentFinance	Receive child support 1999-2000
NDDISAB	StudentFinance	Receive disability payments 1999-2000
NDSTMPS	StudentFinance	Receive food stamps 1999-2000
NDGVAD	StudentFinance	Receive government aid while enrolled 1999-2000
NDSOCSEC	StudentFinance	Receive social security 1999-2000
NDTANF	StudentFinance	Receive TANF 1999-2000
NDUNTAX	StudentFinance	Receive untaxed benefits in 1999
NDWRKCMP	StudentFinance	Receive worker's compensation 1999-2000
NDCRDTUI	StudentFinance	Use credit to pay for tuition
UGLVL2	StudentLevel	Class level for loans in 1999-2000
UGLVL1	StudentLevel	Class level in 1999-2000
COLLGRAD	StudentLevel	Graduating senior in 1999-2000
ZLVL1	StudentLevel	Source for UGLVL1
ZLVL2	StudentLevel	Source for UGLVL2
NGHAVE	Technology	Have email address 2000
NELANG	Technology	Program in computer languages 1999-2000
NEINFO	Technology	Search internet for research 1999-2000
NECHAT	Technology	Use chat rooms for school 1999-2000
NEEMAIL	Technology	Use email for school communication 1999-2000
NESPREAD	Technology	Use spreadsheet software 1999-2000
NEPAPER	Technology	Use word processing software 1999-2000
TEACTCRE	Tests	ACT composite score
TEACTCP1	Tests	ACT composite score percentile rank
TEACTCSR	Tests	ACT composite score source
ACTDATE	Tests	ACT test date
TEACTERE	Tests	ACT-reported English score
TEACTMRE	Tests	ACT-reported math score
TEACTRRE	Tests	ACT-reported reading score
TEACTNRE	Tests	ACT-reported science score
TEACTSRE	Tests	ACT-reported sum score
TESATCRE	Tests	SAT combined score
TESATCP1	Tests	SAT combined score percentile rank
TESATCSR	Tests	SAT combined score source
TESATMRE	Tests	SAT math score
TESATMP1	Tests	SAT math score percentile rank
TESATMSR	Tests	SAT math score source
SATDATE	Tests	SAT test date
TESATVRE	Tests	SAT verbal score
TESATVP1	Tests	SAT verbal score percentile rank
TESATVSR	Tests	SAT verbal score source

Variable name	Section	Variable label
TESATDER	Tests	SAT-derived combined score
TESATDSR	Tests	SAT-derived combined score source
TESATNDE	Tests	SAT-derived math score
TESATNP1	Tests	SAT-derived math score percentile rank
TESATNSR	Tests	SAT-derived math score source
NBPOLIT	Vote	Attend political meetings 1999-2000
NBEVRVT	Vote	Ever vote
NBVTPRS	Vote	Planned to/voted in last presidential election
NBVOTE	Vote	Registered to vote 1999-2000
NBPOLTR	Vote	Write opinion letter 1999-2000
CATIWT	Weight	CATI weight 1999-2000
STUDYWT	Weight	Full sample study weight 1999-2000
UANALPSU	Sample	Analysis PSU for undergrads 1999-2000
UANALSTR	Sample	Analysis strata for undergrads 1999-2000

Appendix K
Imputations

As described in Section 5.4, data for 23 variables were imputed statistically, mostly using the weighted hot deck procedure. This appendix shows the imputation classes and sorting variables for all of the variables imputed by the hot deck approach, as well as the other imputation procedures that were used. As presented in table 5.3, the variables are listed in the order in which the imputations were performed.

(1) **Variable Name:** AGE
Description: Student age as of December 31, 1999
Data Used in Imputations: Study respondents (61,767)
Number Missing: 343 (0.56%)
Imputation Classes: A cross-classification of
  Student type[1]
  Undergraduate/graduate level
  Dependency status
  Student marital status
  Fall attendance status

(2) **Variable Name:** GENDER
Description: Student gender
Data Used in Imputations: Study respondents (61,767)
Number Missing: 959 (1.55%). 817 (1.32%) imputed programmatically, matching first names to those of study respondents with non-missing gender; 62 (0.10%) imputed by means of name/gender recognition; 80 (0.13%) imputed by means of hot deck.
Imputation Classes: Race[2] (simplified)
Sorting Variables:
  Hispanic indicator
  Student type

(3) **Variable Name:** CITIZEN2
Description: Student citizenship
Data Used in Imputations: Study respondents (61,767)
Number Missing: 2,408 (3.90%)
Imputation Classes: A cross-classification of
  Federal student aid receipt status
  Student type
Sorting Variables:
  Institution control
  Institution level of instruction
  Race (simplified)

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[1] A student was classified as either an undergraduate, graduate, or first-professional student

[2] Study respondents were placed in one of five categories, one category for each of the five races. Whenever a study respondent's response was some multiple configuration of races, the most "minority" race (the one race within the configuration with the fewest respondents) was assigned. This hierarchy, from most "minority" to least, was American Indian, Pacific Islander, Asian, black, and white.

(4) **Variable Name:** HISPANIC
Description: Indicator of Hispanic ethnicity
Data Used in Imputations: Study respondents (61,767)
Number Missing: 3,087 (5.00%)
Imputation Classes: A cross-classification of
OBE region[3]
Federal student aid receipt status
Percent of Hispanics at institution (categorical)
Sorting Variable:
First name

(5a) **Variable Name:** RACE
Description: An intermediary variable allowing for a full racial pattern of all possible multiple-listings of races (31 possible values). This variable was formed from the variables that were individual race indicators: R2WHITE, R2BLACK, R2ASIAN, R2ISLAND, and R2INDIAN. After R2CE was imputed, the variables R2WHITE, R2BLACK, R2ASIAN, R2ISLAND, and R2INDIAN were logically assigned from the values of RACE.
Data Used in Imputations: Study respondents (61,767)
Number Missing: 4,968 (8.04%).
Imputation Procedure:

These missing values were those for study respondents who had given no positive response for any of the five racial indicators. The assumption here is that respondents who marked at least one racial category with a positive indication have given a sufficiently complete self-profile even if other racial categories were left missing. Details for each of the 5 racial indicator variables are described below.

Imputation classes: A cross-classification of
Student type
Percent of blacks at institution (categorical)
Percent of Hispanics at institution (categorical)
Percent of Asian/Pacific islanders at institution (categorical)
Percent of American Indians at institution (categorical)
Sorting Variables:
Hispanic indicator
Percent of whites at institution (continuous)
OBE region

(5b) **Variable Name:** RAWHITE
Description: White race indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,005 (8.10%)
Imputation Procedure: Logically imputed from the value of RACE: 1 if RACE had value of white; 0 otherwise

(5c) **Variable Name:** RABLACK
Description: Black race indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,147 (8.33%)
Imputation Procedure: Logically imputed from the value of RACE: 1 if RACE had value of black; 0 otherwise

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[3] Alaska and Hawaii were placed in the region for outlying areas, along with Puerto Rico

(5d) **Variable Name:** RAASIAN
Description: Asian race indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,178 (8.38%)
Imputation Procedure: Logically imputed from the value of RACE: 1 if RACE had value of Asian; 0 otherwise

(5e) **Variable Name:** RAISLAND
Description: Pacific Islander race indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,178 (8.38%)
Imputation Procedure: Logically imputed from the value of RACE: 1 if RACE had value of Pacific Islander; 0 otherwise

(5f) **Variable Name:** RAINDIAN
Description: American Indian race indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,172 (8.37%)
Imputation Procedure: Logically imputed from the value of RACE: 1 if RACE had value of American Indian; 0 otherwise

(6) **Variable Name:** SMARITAL
Description: Student marital status
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,032 (8.15%)
Imputation Classes: 10 CHAID segments defined by cross-classifications of
CPS record indicator
Fall enrollment status
Student type
Age (categorical)[4]
Sorting Variable:
Age

(7) **Variable Name:** ANYDEP
Description: Dependents indicator
Data Used in Imputations: Study respondents (61,767)
Number Missing: 9,179 (14.86%)
Imputation Classes: 8 CHAID segments defined by cross-classifications of
Black race indicator
Gender
Fall enrollment status
Student marital status
Hispanic indicator

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[4] Three broad age categories were defined: 1) less than or equal to 23 years; 2) between 24 and 29 years, inclusive; and 3) greater than 29 years of age

(8a) **Variable Name:** DEPEND
Description: Dependency status indicator (2 levels)
Data Used in Imputations: Study respondents (61,767)
Number Missing: 3,969 (6.43%)
Imputation Procedure:

Missing values were imputed based on age, student marital status, and whether or not the respondent has any dependents. A person was considered an ▯Independent▯ if a he/she had any dependents (ANYDEP=1), or if he/she was at least 24 years of age (AGE ge 24), or if he/she was married or separated (SMARITAL in (2 3)), or if he/she was a graduate or first-professional student (STUTYPE5 in (2 3)). Otherwise, the student was considered to be a ▯Dependent.▯

(8b) **Variable Name:** DEPEND2
Description: Dependency status indicator (3 levels)
Data Used in Imputations: Study respondents (61,767)
Number Missing: 9,447 (15.29%)
Imputation Procedure:

Missing values were imputed based on the values of the first dependency status indicator (DEPEND) and the indicator of any dependents (ANYDEP). If a study respondent has already been identified as independent by DEPEND, and he/she has dependents, then DEPEND2 will indicate whether or not he had any dependents.

(9) **Variable Name:** ATTEND
Description: Fall attendance status
Data Used in Imputations: Study respondents for whom FALL >0 (51,232)
Number Missing: 691 (1.35%)
Imputation Classes: A cross-classification of
Federal aid receipt indicator
Student marital status
Sorting Variable:
Age

(10) **Variable Name:** HSDEG
Description: Indicator and type of high school degree
Data Used in Imputations: Study respondents (61,767)
Number Missing: 5,772 (9.34%)
Imputation Classes: A cross-classification of
Citizenship
Student type
Institution level of instruction
Sorting Variables:
Institution highest level of offering
Age
Race (simplified)

(11) **Variable Name:** LOCALRES
Description: Local residence
Data Used in Imputations: Study respondents (61,767)
Number Missing: 10,704 (17.33%)
Imputation Classes: 8 CHAID segments defined from cross-classifications of
Dependency status indicator (2 levels)
Hispanic indicator
Fall attendance status
CPS record indicator
Dependents indicator
Citizenship
Student marital status
Sorting Variable:
Age

(12) **Variable Name:** NDEPEND
Description: Number of dependents
Data Used in Imputations: Study respondents (61,767)
Number Missing: 11,328 (18.34%) Of study respondents with dependents (ANYDEP=1), there were 4,673 missing (29.98% of 15,586). Of study respondents who reported no dependents (ANYDEP=0), there were 6,655 missing NDEPEND values (14.41% of 46,181).
Imputation Procedure:
Hot deck imputation was implemented for all missing NDEPEND values for which ANYDEP=1. In this group, there were 853 respondents with an NDEPEND value of zero. Since this NDEPEND value was inconsistent with the ANYDEP value, it made these respondents inappropriate donors. Thus, they were eliminated from the donor base. Of the 46,181 study respondents for which ANYDEP=0, there were 6,655 with missing NDEPEND values. All of these were logically set to zero.
Imputation Classes: A cross-classification of
Student marital status
Age (categorical)
Gender
Student type (Graduate students were collapsed into a single group with first-professional students)
Sorting Variables:
Age
CPS record indicator
Institution level of instruction

(13) **Variable Name:** PMARITAL
Description: Parents' marital status
Data Used in Imputations: Study respondents, dependents (26,167)
Number Missing: 3,582 (13.69%)
Imputation Classes: A cross-classification of
- Institution highest level of offering
- Race[5] (simplified)
- Age (categorical)

Sorting Variables:
- Age
- Race

(14) **Variable Name:** PFAMNUM
Description: Parent family size
Data Used in Imputations: Study respondents, dependents (26,167)
Number Missing: 3,582 (13.69%)
Imputation Classes: A cross-classification of
- Parents' marital status
- Institution highest level of offering
- Race[5] (simplified)

Sorting Variables:
- Age
- Race

(15) **Variable Name:** DEPINC
Description: Parents□ income
Data Used in Imputations: Study respondents, dependents (26,167)
Number Missing: overall: 10,503 (40.14%)
1st stage: 6,901 (48.29% of 14,292 dependents reporting parents' income category)
2nd stage: 3,602 (18.96% of dependents not imputed in 1st stage)
Imputation Classes, 1st Stage: A cross-classification of
- Parent income category from student reports (if reported)
- Parent marital status

Imputation Classes, 2nd Stage: 9 CHAID segments defined by cross-classifications of
- Pell grant status
- Parent marital status
- Citizenship
- Hispanic indicator
- Parent family size

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[5] Study respondents were placed in one of five categories, one category for each of the five races. Whenever a study respondent's response was some multiple configuration of races, the most "minority" race (the one race within the configuration with the fewest respondents) was assigned. This hierarchy, from most "minority" to least, was American Indian, Pacific Islander, Asian, Black, and White.

Sorting Variables:
Parents' highest education
Race

NOTE: The imputation for parent income was performed in two stages. The first stage imputed for students who reported their parents' income category but the actual parents' income amount was missing. The first stage used a cross-classification of parent income category and parent marital status as the imputation classes among students who reported their parents' income category. The second stage imputed for students who did not report both their parents' income category and actual parent's income. The second stage imputed the remaining missing values where several variables were used to define the imputation classes, including parent marital status, which was also used as an imputation class in the first stage. In both stages, parents' highest education and race were used as the sorting variables.

(16)	**Variable Name:**	HSGRADYY
	Description:	High school graduation year
	Data Used in Imputations:	Study respondents, high school degree or certificate (61,058)
	Number Missing:	8,416 (13.78%)

Imputation Procedure:

It was assumed HSGRADYY was not missing for respondents who had indicated that they had no HS diploma or GED or certificate. All others were divided into two groups: those who had received an HS diploma (HSDEG=1; there were 7,554 of these) and those remaining (862). For the first group, high school graduation year was modeled as a function of age using simple linear regression. The model was

GradYr= 2017.305787 - 1.001766*Age

Graduation year was rounded to the nearest whole year, and it was not allowed to exceed the year 2000, which was the most recent year of an existing study respondent. (There were seven study respondents, aged 15 or 16, whose graduation years were set to the year 2000 in this manner). The modeling utilized only observations with non-missing age and HS graduation year for those which had indicated HSDEG=1 (49,673). The R^2 was 0.994559, and the MSE was 0.423. The earliest year set in this way was 1931 for two study respondents, both 86 years of age.

The remaining missing values were imputed using weighted hot deck procedures.

Imputation classes: A cross-classification of
Type of high school degree
Age (categorical)

Sorting Variable:
Age

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(17) **Variable Name:** INDEPINC
Description: Student□s income
Data Used in Imputations: Study respondents, independents (35,600)
Number Missing: 8,761 (24.61%)
Imputation Classes: 54 CHAID segments defined by cross-classifications of
CPS record indicator
Pell grant status
Dependents indicator
Stafford loan status
Student marital status
Age (categorical)
Local residence
Institution level of instruction
Hispanic indicator
Institution control
White race indicator
Region
Attendance status
Asian race indicator
Citizenship
Gender
Student type

Sorting Variables:
Attendance status[6]
Age

(18) **Variable Name:** EFC4
Description: Expected family contribution
Data Used in Imputations: Study respondents (61,767)
Number Missing: 29,086 (47.1 percent) total; Specifically, 10,207 (39.5 percent) dependents, 10,743 (55.0 percent) independents without dependents, and 8,136 (49.5 percent) independents with dependents…

Imputation procedure:

Records with a recorded value (EFC1) were divided into the three categories of EFC formula types, and separate regression equations were developed.

For both types of independent students the variables used for the estimation were:

Student total income
Student marital status
Student family size
Student number in college
Dummy variable for total income of $75,000 or more

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[6] Attendance status was used as a sort variable in addition to defining CHAID segments because attendance status was an important variable for determining student's income and it was not included in all CHAID segments.

For dependent students the variables were:

- Parent total income
- Parent income squared
- Parent family size
- Parent number in college
- Parent marital status
- Dummy variable for total income of $75,000 or more

Logistic regression was used to predict whether or not the student fell into the zero EFC group. If the estimated probability was below .5, the case was estimated to have a non-zero EFC. If the value was greater than or equal to .5, the case was estimated to have a zero EFC. For the non-zero cases, an OLS based regression formula was used to estimate the EFC. The adjusted R squared values for the OLS regressions were .69 for dependent students, .59 for independent students without dependents, and .60 for independent students with dependents.

The correlation coefficients between estimated and actual EFC were:

Dependent	.85
Independent/no dependents	.72
Independent/with dependents	.78

For independent students, about 70 percent of the predicted values were within one thousand dollars of the actual value for the EFC. The results for dependent students were less satisfactory, with only about 28% of the values within one thousand dollars.

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Table K-1.—Distribution of imputed variables before and after imputation

	All students				Undergraduates				Graduates/first-professionals			
	Before imputation		After imputation		Before imputation		After imputation		Before imputation		After imputation	
	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]
Age												
19 or younger	8,975	19.32	9,030	19	8,929	22.30	8,980	22	46	0.66	50	1
20 to 23	22,285	31.43	22,420	32	21,187	34.83	21,310	35	1,098	10.20	1,110	10
24 to 29	13,456	20.09	13,510	20	8,924	17.01	8,940	17	4,532	39.35	4,570	39
30 to 39	9,385	15.76	9,440	16	6,048	13.93	6,060	14	3,337	27.20	3,380	27
40 or older	7,323	13.40	7,360	13	4,622	11.93	4,640	12	2,701	22.58	2,730	23
Gender												
Male	25,611	43.57	26,030	44	20,514	43.74	20,780	44	5,097	42.49	5,250	43
Female	35,197	56.43	35,740	56	28,755	56.26	29,150	56	6,442	57.51	6,590	57
Citizenship												
U.S. citizen	54,212	92.23	56,350	92	44,907	93.03	46,410	93	9,305	87.05	9,930	87
Resident	2,555	4.60	2,640	5	2,193	4.80	2,270	5	362	3.29	380	3
Visa	2,592	3.18	2,780	3	1,195	2.17	1,260	2	1,397	9.66	1,520	10
Ethnicity												
Hispanic	6,502	11.60	6,810	12	5,723	12.32	5,970	12	779	7.12	830	7
Not Hispanic	52,178	88.40	54,960	88	41,731	87.68	43,960	88	10,447	92.88	11,000	93
Race												
White	44,171	77.01	47,820	77	35,859	76.92	38,810	77	8,312	77.53	9,010	77
Black or African American	6,607	12.48	7,250	12	5,653	13.07	6,210	13	954	8.86	1,030	9
Asian	3,675	6.04	4,080	6	2,422	5.40	2,720	6	1,253	9.99	1,350	10
American Indian or Alaska Native	419	0.85	460	1	367	0.92	400	1	52	0.37	60	#
Native Hawaiian or Pacific Islander	256	0.51	290	1	201	0.51	230	1	55	0.49	60	#
Multiple races	1,671	3.11	1,880	3	1,379	3.18	1,560	3	292	2.74	320	3
Student marital status												
Single	42,752	74.74	46,150	74	36,774	77.73	39,600	77	5,978	56.53	6,560	56
Married	13,109	23.77	14,710	25	8,494	20.68	9,540	22	4,615	42.62	5,170	43
Separated	874	1.49	900	1	774	1.59	800	1	100	0.85	110	1
Any dependents												
No	38,673	72.20	45,330	72	32,304	73.37	37,430	73	6,369	64.97	7,890	66
Yes	13,915	27.80	16,440	28	10,549	26.63	12,500	27	3,366	35.03	3,940	34
Dependency status – two level												
Dependent	23,192	40.10	26,170	43	22,839	46.62	25,810	49	353	3.14	350	3
Independent	34,606	59.90	35,600	57	23,126	53.38	24,120	51	11,480	96.86	11,480	97

Table K-1.—Distribution of imputed variables before and after imputation—Continued

	All students				Undergraduates				Graduates/first-professionals			
	Before imputation		After imputation		Before imputation		After imputation		Before imputation		After imputation	
	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]
Dependency status – three level												
Dependent	23,192	44.96	26,170	43	22,839	51.63	25,810	49	353	3.79	350	3
Independent without dependents	15,213	27.05	19,160	29	9,197	21.51	11,620	24	6,016	61.18	7,540	63
Independent with dependents	13,915	28.00	16,440	28	10,549	26.86	12,500	27	3,366	35.03	3,940	34
Fall attendance status												
Full-time	36,248	62.68	36,720	63	30,809	64.53	31,230	65	5,439	51.30	5,500	51
Half-time	8,392	20.74	8,530	21	6,198	20.16	6,300	20	2,194	24.32	2,230	24
Less than half-time	5,901	16.58	5,980	17	3,731	15.32	3,780	15	2,170	24.38	2,200	24
High school degree indicator and type												
Diploma	51,923	92.37	57,230	92	42,947	92.16	46,240	92	8,976	93.86	10,990	94
GED	2,185	4.65	2,360	5	2,079	5.14	2,230	5	106	1.24	130	1
Certificate	307	0.47	360	#	161	0.30	180	#	146	1.65	180	2
Foreign	932	1.50	1,110	2	574	1.30	630	1	358	2.85	490	3
None	648	1.01	710	1	607	1.09	660	1	41	0.40	50	#
Local residence												
On campus	8,773	15.43	9,860	15	8,044	16.77	9,030	16	729	7.31	830	7
Off campus	33,023	62.47	40,530	64	24,570	58.39	30,180	60	8,453	87.16	10,350	87
With parents	9,267	22.10	11,380	22	8,814	24.84	10,730	24	453	5.53	650	6
Number of dependents												
1	3,985	35.46	6,350	40	2,931	35.78	4,940	40	1,054	34.14	1,410	37
2	4,029	37.45	5,460	36	2,803	36.50	3,990	35	1,226	41.36	1,470	40
3 or 4	2,547	23.98	3,340	22	1,875	24.58	2,540	22	672	21.48	800	20
5 or more	352	3.11	440	3	250	3.13	310	3	102	3.03	130	3
Parent marital status												
Married	16,699	73.94	19,350	72	16,407	72.26	19,060	72	292	78.22	290	78
Not married	5,886	26.06	6,820	28	5,825	27.74	6,760	28	61	21.78	60	22
Parent family size												
2	1,805	7.99	2,080	8	1,786	8.17	2,060	8	19	7.62	20	8
3	5,979	26.47	6,940	26	5,850	25.54	6,810	26	129	33.52	130	34
4	7,392	32.73	8,550	32	7,269	32.30	8,430	32	123	36.50	120	37
5	4,592	20.33	5,360	21	4,531	20.83	5,300	21	61	16.78	60	17
6	1,724	7.63	1,970	8	1,712	7.82	1,960	8	12	2.21	10	2
7 or more	1,093	4.84	1,270	5	1,084	5.35	1,260	5	9	3.38	10	3

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Table K-1.—Distribution of imputed variables before and after imputation—Continued

	All students				Undergraduates				Graduates/first-professionals			
	Before imputation		After imputation		Before imputation		After imputation		Before imputation		After imputation	
	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]	Sample size	Percent estimate[1]
Parents' income[2]												
Less than $20,000	2,771	17.69	3,420	13	2,748	18.24	3,400	13	23	6.96	20	7
$20,000-$39,999	3,619	23.10	5,210	21	3,574	24.45	5,160	21	45	12.83	50	13
$40,000-$59,999	3,212	20.51	5,430	22	3,141	21.04	5,360	22	71	19.39	70	19
$60,000-$79,999	2,558	16.33	4,500	17	2,497	15.88	4,440	17	61	20.06	60	20
$80,000-$99,999	1,572	10.04	3,080	11	1,522	9.26	3,030	11	50	12.64	50	13
$100,000 or more	1,932	12.33	4,530	16	1,829	11.12	4,430	16	103	28.11	100	28
High school graduation year												
1999 or 2000	5,187	12.84	5,490	12	5,158	14.52	5,460	14	29	0.62	30	#
1998	4,806	11.98	5,180	11	4,788	13.59	5,160	13	18	0.30	30	#
1997	4,218	10.16	4,610	10	4,193	11.51	4,570	11	25	0.34	40	#
1996	6,983	9.18	7,560	9	6,929	10.36	7,480	10	54	0.58	80	1
1991-1995	14,602	22.14	17,000	22	11,967	20.91	13,570	21	2,635	31.15	3,430	31
1981-1990	9,631	18.33	12,160	20	6,123	15.50	7,390	17	3,508	38.93	4,770	40
1980 or before	7,215	15.36	9,060	16	4,665	13.62	5,650	15	2,550	28.08	3,410	28
Student's income												
Less than $10,000	7,367	22.81	8,360	19	5,712	23.67	6,440	20	1,655	20.10	1,920	17
$10,000-$19,999	5,466	19.78	6,850	18	4,048	21.44	4,960	19	1,418	14.61	1,890	15
$20,000-$29,999	3,628	14.94	5,010	15	2,650	16.05	3,610	16	978	11.47	1,410	12
$30,000-$39,999	2,588	10.78	3,740	12	1,729	10.90	2,500	12	859	10.40	1,240	11
$40,000-$49,999	1,889	7.85	2,870	9	1,184	7.62	1,860	9	705	8.58	1,010	9
$50,000 or more	5,901	23.84	8,760	27	3,036	20.32	4,750	24	2,865	34.83	4,010	36
Expected family contribution												
$0	9,775	27.48	16,480	25	8,504	27.15	13,090	25	1,271	30.30	3,390	28
$1-$1,500	5,028	15.56	6,770	11	4,489	15.87	5,720	11	539	12.96	1,050	9
$1,501-$3,500	4,593	15.10	7,380	12	4,004	15.26	6,040	13	589	13.76	1,340	11
$3,501-$7,500	5,447	17.12	11,240	19	4,745	17.06	8,940	19	702	17.65	2,300	19
$7,501-$15,500	5,074	15.23	11,350	19	4,402	15.04	9,040	19	672	16.82	2,310	20
$15,501-$22,500	1,550	4.55	3,600	6	1,373	4.57	2,950	6	177	4.38	650	6
$22,501 or greater	1,682	4.96	4,950	8	1,520	5.05	4,160	8	162	4.14	800	7

Less than 0.5 percent

[1] Percentages may not sum to 100.00 due to rounding.

[2] Graduates/first-professionals are independent by definition. However, 353 of them were coded as dependents before imputation and all 353 had missing parents' income.

NOTE: To protect confidentiality, some numbers have been rounded.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Postsecondary Student Aid Study, 1999–2000 (NPSAS:2000)

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